

Dear researcher,

We are very glad to present to you our new product catalogue for 2007. During 2006 we have again put our utmost effort in extending our range of high quality ELISpot and ELISA kits for the analysis of cytokines and other immunological effector molecules.

We have focused specifically on the development of the new ELISA^{PRO} kit format, a straight-forward and highly sensitive tool for quantification of cytokines in both serum/plasma and in cell culture supernatant.

We have developed ELISpot and ELISA kits to human MIP-1 β and we would also like to highlight our third combination of antibodies to specific human IFN- α subtypes, which is supplementing the earlier launched subtype specific variants of antibody combinations. The new combination detects the majority of all secreted IFN- α subtypes and is suitable for ELISpot and ELISA.

For research in veterinary immunology we can now offer high quality IFN- γ ELISpot and ELISA kits to be applied in bovine, ovine, equine and porcine systems.

Our product portfolio has been enlarged by antibodies to human Amyloid- β and human Calreticulin suitable for different immunological applications.

Finally, we are also proud of being the first company to launch precoated ELISpot strip-plates.

As usual we invite you to study our new catalogue and hope that you will find research tools of interest. If you need additional information please feel free to contact us directly or visit our website www.mabtech.com.

Mabtech AB

Mabtech AB is a privately owned Swedish biotech company founded in 1986. Emerging from the Department of Immunology at Stockholm University, Mabtech has become a world leader in developing high quality reagents specifically suited for ELISpot and T cell measurements.

The head office and the research laboratory are located in Stockholm, Sweden. In order to work closely with the research community and to offer fast deliveries we also have subsidiaries and offices in Australia, France, Germany and the USA. In several other countries we work via selected distributors.

All our products are developed and manufactured by Mabtech AB, Sweden, whose quality management system complies with the following standards:

ISO 9001:2000 and ISO 13485:2003.



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Interleukin-5	72	
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Interferon- γ	84	New
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Interferon- γ	86	New
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The ELISpot method

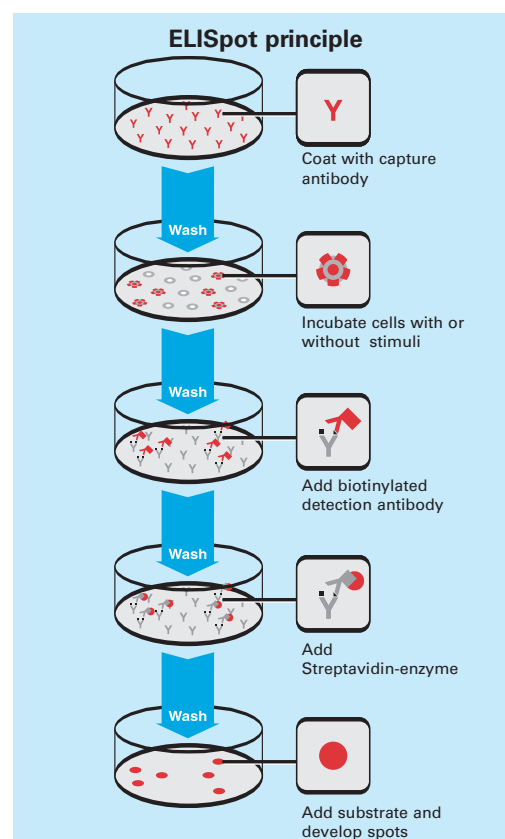


Figure 1. ELISpot principle: As a first step, cytokine-specific monoclonal antibodies are immobilized on a solid phase. We recommend the use of a 96-well microtiter plate with a polyvinyl-difluoride (PVDF) membrane. In the second step, the cells to be investigated are added to the wells in presence or absence of stimuli and incubated for a relevant time period to allow cytokine production. The secreted cytokine will bind to the capture antibodies in the vicinity of the producing cells and, after removal of the cells by washing, detection anti-cytokine antibodies are added. These antibodies are either directly conjugated with enzyme or biotinylated, in which case a third step with enzyme conjugated Streptavidin is required. Finally a substrate is added which will form a colored, insoluble precipitate when catalyzed by the enzyme. This way a visible spot corresponding to the location of the producing cell is formed. The spots can be counted under a dissection microscope or with an automated ELISpot reader and the frequency of positive cells registered.

Mabtech also offers the ELISpot^{PRO} kit, a ready to use one-step detection kit using precoated plates with capture antibody and an enzyme-conjugated detection antibody (for details see page 12).

The Enzyme-Linked ImmunoSpot (ELISpot) assay is a very sensitive immunoassay, which allows the detection of a secreted cytokine at the single cell level¹.

With detection levels that can be as low as one cell in 100 000, the ELISpot is one of the most sensitive cellular assays available. Depending on the substance analyzed, it is between 20 and 200 times more sensitive than a conventional ELISA. In fact, the ELISpot displays a similar sensitivity as a RT-PCR analysis but detects the secreted protein instead of the mRNA. For cytokine analyses this is advantageous since many cytokines are translationally regulated. ELISpot analyses are also less impaired by binding proteins and protease activity since the analyte is bound to the capture antibody immediately after secretion. Due to its high sensitivity, the ELISpot has proven particularly useful when studying small populations of active cells such as those regularly found in specific immune responses.

The principle of ELISpot

While originally developed as a method to identify and enumerate antibody secreting cells²⁻³, the ELISpot assay is today primarily used to investigate specific T-cell responses. It here exploits the fact that T cells start to produce cytokines as a part of the activation process after challenge with antigen. In this way, all cells with the capacity to respond to a certain antigen can be identified on basis of their cytokine secretion.

In practice, the cells are cultured on a surface coated with specific capture antibody and in the presence or absence of antigen. After an appropriate time of incubation (typically 12-18 hours) cells are removed and the secreted molecule is detected using a similar detection procedure as in a regular ELISA (see Fig. 1). However, by employing a precipitating instead of a soluble substrate the end result is seen as visible spots,

each corresponding to an activated T cell. Thus, instead of information about the concentration of a particular substance in solution, the ELISpot gives the frequency of secreting cells. The spots can then be counted either manually under a microscope or more conveniently in an ELISpot reader. As most readers also provide information about the size and intensity of the individual spots, an estimate of the amount of secreted cytokine may additionally be obtained.

Applications

The cytokine ELISpot assay has been widely applied to investigate specific immune responses in various diseases including infections, cancer, allergies and autoimmune diseases. It has also become a standard tool in the development and monitoring of new vaccines and vaccine candidates. Often Interferon-gamma (IFN- γ) has been the analyte of choice serving as an immunocorrelate for CD8⁺ cytotoxic T-cell (CTL) responses (see Fig. 2).

Today, the IFN- γ ELISpot is used in many large-scale trials to monitor new HIV vaccine candidates as well as in the evaluation of vaccines and vaccine strategies for other viruses and pathogens and also tumors. The ELISpot assay is used to define vaccine efficacy by measuring the capacity to elicit potent T-cell responses. This information can then be used to evaluate suitable strategies for vaccine design as

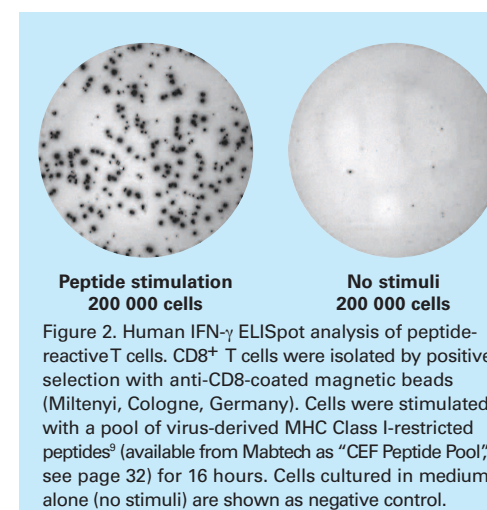


Figure 2. Human IFN- γ ELISpot analysis of peptide-reactive T cells. CD8⁺ T cells were isolated by positive selection with anti-CD8-coated magnetic beads (Miltenyi, Cologne, Germany). Cells were stimulated with a pool of virus-derived MHC Class I-restricted peptides⁹ (available from Mabtech as "CEF Peptide Pool", see page 32) for 16 hours. Cells cultured in medium alone (no stimuli) are shown as negative control.

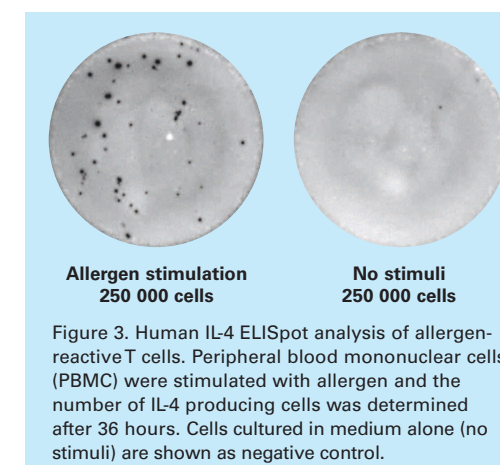


Figure 3. Human IL-4 ELISpot analysis of allergen-reactive T cells. Peripheral blood mononuclear cells (PBMC) were stimulated with allergen and the number of IL-4 producing cells was determined after 36 hours. Cells cultured in medium alone (no stimuli) are shown as negative control.

well as routes of administration. In addition to measurements of IFN- γ , ELISpot assays for other key factors of importance for cytotoxicity, such as Perforin, Granzyme B and MIP-1 β have been developed to facilitate analysis of further aspects of CTL activity⁴.

Depending on the cytokines analyzed, the ELISpot assay can be used to discriminate between different subsets of activated T cells. For example, T-helper (Th) 1 type cells are characterized by their production of IFN- γ , IL-2 and TNF- α whereas other cytokines like IL-4, IL-5 and IL-13 are typically produced by Th2 cells. Determination of Th2 type cytokines by ELISpot is of particular interest in allergy research, where Th2 responses are of major importance but most often occur at low frequencies requiring highly sensitive methods for successful detection (see Fig. 3). Applications of relevance include e.g. monitoring of T-cell reactivity in specific immunotherapy against atopic allergies and development of potential *in vitro* diagnostic tests for cell-mediated contact allergies⁷. ELISpot detection of IL-4, the principal cytokine of Th2 type responses, is especially interesting since other methods like flow cytometry and ELISA often display insufficient sensitivity resulting in a failure to detect allergen-specific responses⁸.

In addition to its use as a research tool, the ELISpot method has also been exploited for diagnostic purposes and recently the first

approved diagnostic test based on the ELISpot platform was launched. The test which detects patients with active or latent tuberculosis infection is measuring the presence of T cells responding to defined antigens from *Mycobacterium tuberculosis* by IFN- γ secretion. It substitutes the commonly used skin test but adds both greater sensitivity and specificity and is unlike the skin test not confounded by prior vaccination with BCG⁵⁻⁶.

Although primarily used in T cell analysis, the ELISpot technique can basically be applied to any system where one wants to investigate protein secretion at the single cell level. The method is especially attractive in situations where the enumeration of the producing cells is critical and/or when the producing cells constitute only a small minority of the cells. An example of the latter is plasmacytoid dendritic cells which normally occur at very low frequency in the blood but are easily detected in the ELISpot based on their production of IFN- α after activation (see Fig. 4).

The ELISpot assay is suitable for performing individual tests as well as large scale trials. In contrast to e.g. tetramer analysis, an excellent method for extracting detailed information on CTL responses, screening of large sample numbers by ELISpot does not require prior identification of epitopes and their MHC class-I restriction. With a limited need for advanced laboratory equipment it has also proven to be well suited

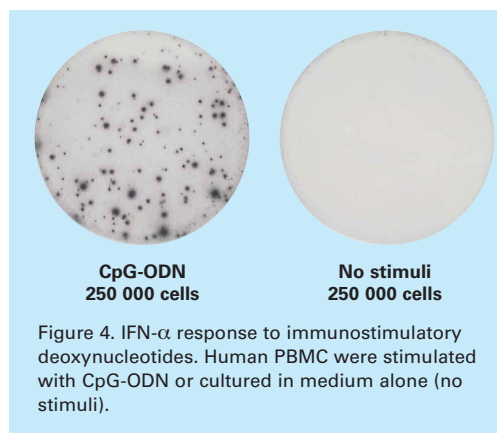


Figure 4. IFN- α response to immunostimulatory deoxynucleotides. Human PBMC were stimulated with CpG-ODN or cultured in medium alone (no stimuli).

ed for field studies. Also, the ELISpot seems to be of similar value independent of species and in addition to assays for use with human, monkey, mouse and rat cells, reagents are available for veterinary applications enabling assessment of T-cell responses in samples of bovine, ovine, equine and porcine origin.

Positive controls in ELISpot

When measuring antigen-specific T-cell responses in ELISpot, relevant controls are vital. Apart from the negative control which normally consists of cells in medium without antigen or other stimuli, the addition of a polyclonal T-cell activator may serve as a positive control both for cell viability and the functionality of the immunoassay.

For polyclonal activation, certain antibodies

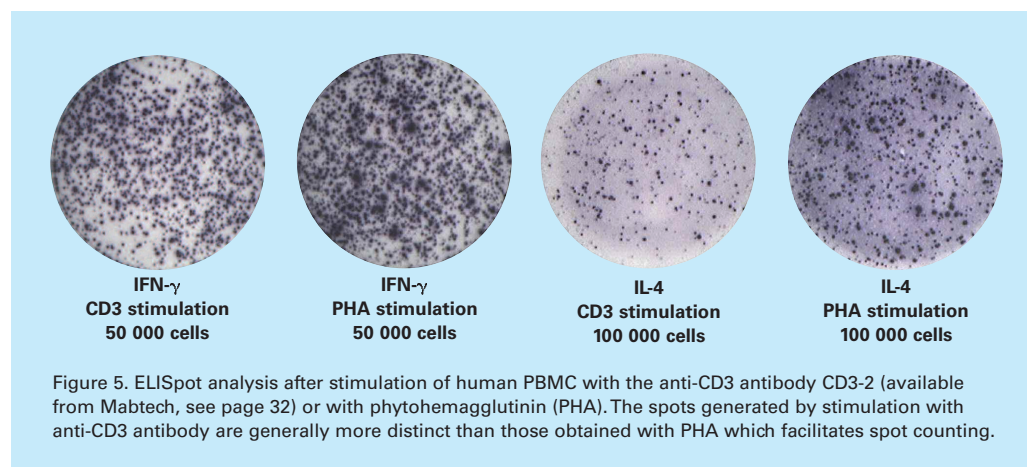


Figure 5. ELISpot analysis after stimulation of human PBMC with the anti-CD3 antibody CD3-2 (available from Mabtech, see page 32) or with phytohemagglutinin (PHA). The spots generated by stimulation with anti-CD3 antibody are generally more distinct than those obtained with PHA which facilitates spot counting.

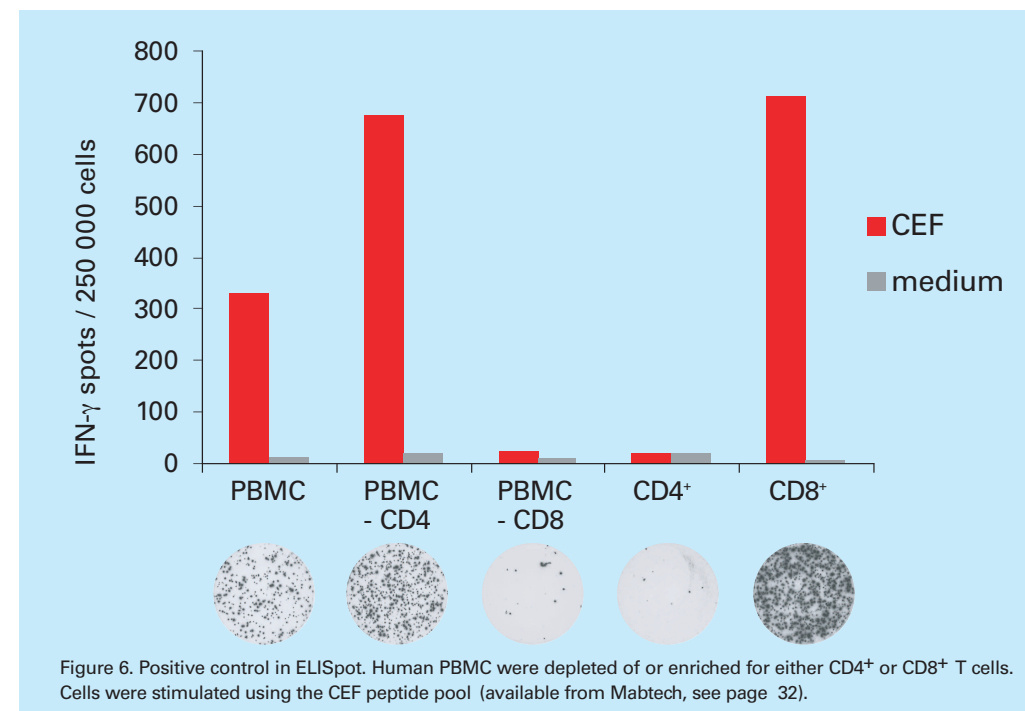


Figure 6. Positive control in ELISpot. Human PBMC were depleted of or enriched for either CD4⁺ or CD8⁺ T cells. Cells were stimulated using the CEF peptide pool (available from Mabtech, see page 32).

specific for CD3 are ideally used. A multitude of T-cell cytokines including IFN- γ , IL-2, IL-4, IL-5, IL-10 and IL-13 are elicited by this stimulation, and this control can thus be used in a variety of ELISpot assays. Other commonly used stimulators include phytohemagglutinin (PHA) and concanavalin A (ConA), which are both potent T-cell activators and can be used in a similar way as anti-CD3 antibodies for activation of CD4⁺ and CD8⁺ T cells (see Fig. 5). Another useful positive control is based on the addition of antigens to which most people have specific T cells. With IFN- γ production by antigen-specific human CD8⁺ T cells being a major area of use for the ELISpot, a positive antigen-specific control, the CEF peptide pool, has been developed particularly for this application. This pool contains 23 different class-I restricted peptides, all defined as common CD8⁺ T-cell epitopes derived from cytomegalovirus, Epstein-Barr virus and influenza virus⁹. It efficiently induces IFN- γ production by virus-specific CD8⁺ T cells in almost 90% of Caucasians and also elicits Perforin, Granzyme B and MIP-1 β responses in many individuals. In addition to

serving as a positive control, the CEF peptide pool is useful for standardization procedures (see Fig. 6).

Optimization of the ELISpot protocol

Several steps of the ELISpot assay protocol are critical in order to achieve maximal detection of spots. The choice of highly specific antibodies is of utmost importance and sets the basis for other aspects of optimization. Other crucial parameters include the choice of ELISpot plates and the coating procedure. The use of PVDF membrane plates enables efficient binding of high amounts of capture antibody, provided that the PVDF membrane is treated with ethanol (EtOH) prior to coating. Empirically, different types of plates have been found to react differently to the EtOH treatment and it is critical to use an optimized protocol (see Table I).

After a correct EtOH treatment, the spots obtained will be of significantly better quality and spot numbers may also often be higher compared to what is seen in non-EtOH treated plates (see Fig. 7). Noteworthy, treatment with larger volumes of EtOH or longer treatment

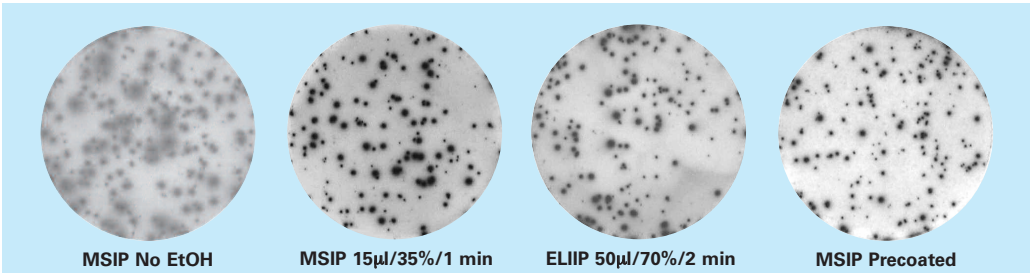


Figure 7. Influence of ethanol (EtOH) treatment prior to the coating step when using PVDF plates. Shown above are: MSIP plate not treated with EtOH; MSIP plate treated with 15 µl of 35% EtOH for 1 min; and ELIIP plate treated with 50 µl of 70% EtOH for 2 min. A precoated MSIP plate included for example in the ELISpot^{PRO} kit is shown for comparison. Human PBMC were stimulated with CEF peptide pool and assessed for IFN-γ production (250 000 cells/well).

Recommended conditions for EtOH treatment of PVDF plates

ELIIP plates (Millipore cat. no, MAIPSWU)
Add 50 µl of 70% EtOH per well and incubate for 2 min

MSIP plates (Millipore cat. no, MSIPS45)
Add 15 µl of 35% EtOH per well and incubate for 1 min
EtOH concentration and incubation time are critical!

The EtOH treatment is followed by washing with sterile water before addition of capture antibody.

Table I.

times than recommended can instead reduce the performance of the assay.

For adsorption of the capture antibody, we generally recommend the use of 15 µg/ml of capture antibody (100 µl/well) based on the fact that the spot quality declines with the capture antibody concentrations (see Fig. 8). Although ELISpot protocols using lower capture antibody concentrations can be used after proper validation, the spots obtained tend to become more diffuse and less focused making the evaluation more difficult. In many cytokine ELISpot assays, the use of less capture antibody may also result in a significant loss of detectable spots. These aspects need to be taken into account when designing and validating new assay protocols, especially when monitoring cell populations in which the frequency of producing cells or the amount of produced cytokine is low.

For the final detection of spots a precipitating substrate is used. This will vary dependent on

what enzyme (ALP or HRP) is used in the previous step. As different substrates do not only give different colors (see Fig. 9) but may also yield different sensitivities the choice of substrate is not trivial. We normally recommend BCIP/NBT for ALP and TMB for HRP as both show excellent sensitivity and give distinct spots that are easy to evaluate.

Appreciating these conditions and using high quality reagents, the ELISpot is not only an easy and rapid assay to perform but is also robust and reliable. Recent developments with precoated plates and one-step detection reagents (ELISpot^{PRO}) represent further simplifications that will help to facilitate experimental and clinical studies as well as diagnostic applications based on ELISpot.

Mabtech has worked extensively to optimize the ELISpot protocol for more than ten years to ensure that we deliver the most accurate analytical performance.

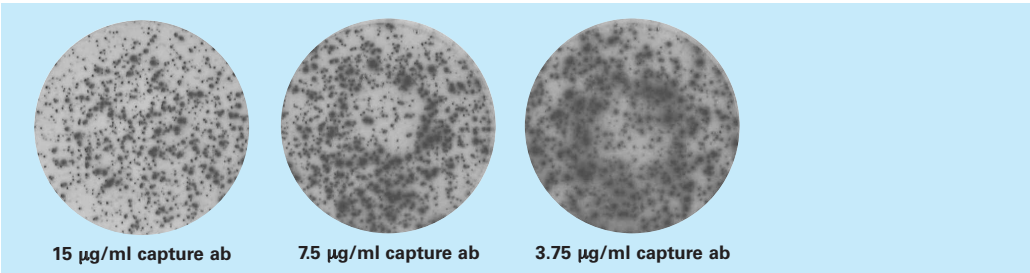


Figure 8. Impact of capture antibody concentration on the performance of the ELISpot assay. PVDF plates were EtOH treated followed by a coating step over night using capture antibody at 15, 7.5 or 3.75 µg/ml (100 µl/well). Human PBMC were stimulated with CEF peptide pool and assessed for IFN-γ production (250 000 cells/well).

Substrates

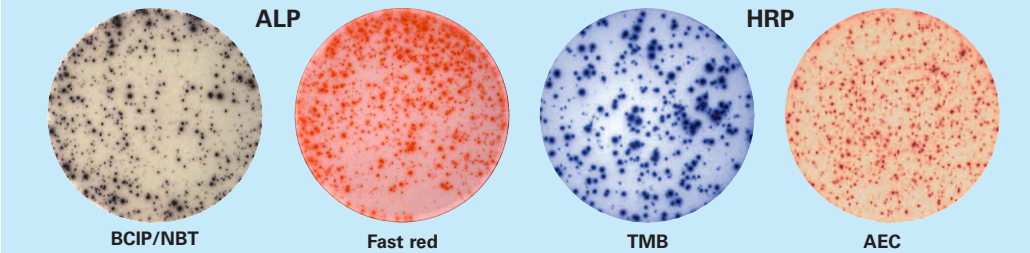


Figure 9. Common substrates in ELISpot. Different enzymes (ALP or HRP) in the ELISpot can be combined with different substrates. Here this is illustrated by using IFN-γ ELISpot with substrates BCIP/NBT and Fast Red for alkaline phosphatase (ALP), and with TMB and AEC for horseradish peroxidase (HRP). Please note that the results were generated in different experiments and therefore the number of spots should not be compared.

If you have further questions regarding the ELISpot technique, applications or optimization strategies, please contact Mabtech directly (see back cover for contact details).

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ELISpot kits

The ELISpot assay is a valuable method in numerous different settings. Mabtech aims to supply high quality ELISpot reagents for the small frontline research group as well as for the big vaccine trials; accordingly the ELISpot reagents from Mabtech are available in different formats. Our kits have been developed to offer maximum convenience for the researcher. In addition, the same monoclonal antibodies can be obtained as separate reagents as well as matched antibody pairs with equal performance.

The most advanced ELISpot kit from Mabtech is our ELISpot^{PRO} kit. Beginners in the ELISpot field will find top performance and easy handling with these kits, as will the users looking for short assay time and validated high reproducibility. Other users who would like to optimize their own assays often choose our basic ELISpot kit. Mabtech also supplies the ELISpot^{PLUS} kit, a complete ELISpot kit including plates, positive control and substrate. A description of the different kits is displayed on the following pages. In the table below you will find a list of the specific contents of each kit.

New for this year is also that we, as the first company, are able to offer precoated plates in the 8-well strip format. This allows the user to run one plate at multiple time points and is ideal when e.g. having only one or a few samples to test. While initially available for a limited number of cytokines the range of systems and formats with strip-plates will be extended during the year.

On request precoated plates for other cytokines than those listed may be obtained. Please contact Mabtech for further details.

Please consult the product pages for detailed information about which ELISpot kit formats are available for specific cytokines.

Overview of contents in Mabtech ELISpot kits

Contents	ELISpot ^{PRO}	ELISpot ^{PLUS}			ELISpot kit
		precoated	regular	strips	
PVDF strip-plates precoated with capture mAb				●	
PVDF plates precoated with capture mAb	●	●			
PVDF plates			●		
Capture mAb*			●		●
One-step detection mAb-enzyme	●				
Biotinylated detection mAb		●	●	●	●
Streptavidin-enzyme conjugate		●	●	●	●
Substrate	●	●	●	●	
Positive control**	●	●	●	●	

* The kit contains matched quantities of coating and detection antibodies sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of capture antibody.
** The mAb CD3-2 (see page 32) is included as a positive control in PRO and PLUS kits for the following cytokines: Human IFN-γ, IL-2, IL-4, IL-5, IL-10, IL-13 and monkey IFN-γ.

Overview of range of Mabtech ELISpot kits

Species	Analyte	ELISpot ^{PRO}	ELISpot ^{PLUS}			ELISpot
			precoated	regular	strips	
Human	GM-CSF			●		●
	Granzyme B			●		●
	IFN-α (subtype 2)			●		●
	IFN-α (subtype 8, 10, 14, 17)			●		●
	IFN-α (pan specific)			●		●
	IFN-γ	●	●	●	●	●
	IL-1β (IL-1F2)			●		●
	IL-2			●		●
	IL-4	●	●	●		●
	IL-5			●		●
	IL-6			●		●
	IL-10			●		●
	IL-12 (total)			●		●
	IL-12 (p70)			●		●
	IL-13			●		●
	MIP-1β			●		●
	Perforin		●	●		●
	TNF-α			●		●
	ApoA1			●		●
	ApoB			●		●
Monkey*	IFN-γ	●	●	●	●	●
	IL-2			●		●
	IL-4	●	●	●		●
	IL-5			●		●
	IL-6			●		●
	IL-12 (total)			●		●
	IL-13			●		●
	GM-CSF			●		●
Mouse	Perforin		●	●		●
	IFN-γ		●	●		●
	IL-2			●		●
	IL-4			●		●
	IL-5			●		●
	IL-10			●		●
	IL-12 (total)			●		●
Rat	IFN-γ			●		●
	IFN-γ			●		●
	IFN-γ			●		●
	IFN-γ			●		●
	IFN-γ			●		●
	IFN-γ			●		●
	IFN-γ			●		●

* The monkey systems have been validated with rhesus and cynomolgus macaque samples.



ELISpot^{PRO} kit

Contents:

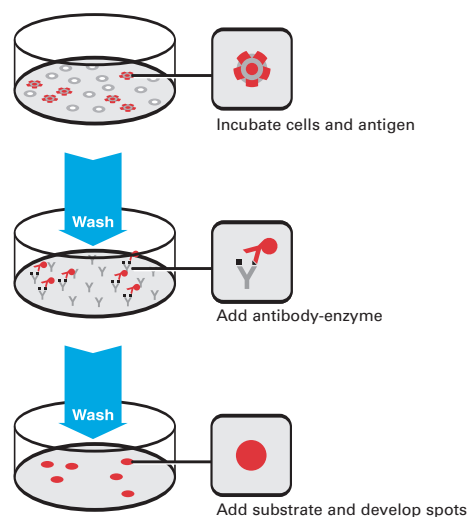
- 2 or 10 precoated PVDF plates*
- ALP- or HRP**-conjugated detection mAb
- Substrate (BCIP/NBT or TMB**)
- Positive control (CD3-2 mAb)

Additional material required: Buffers

The ELISpot^{PRO} kit is the most advanced kit developed by Mabtech. The ELISpot^{PRO} kit combines top performance with a rapid procedure. Included are plates precoated with capture mAb and a detection mAb conjugated with enzyme. The plates are ready to use, which excludes the need for pretreatment and antibody coating. The plates are precoated with capture antibody at Mabtech, using an automated procedure that gives high reproducibility. The unique protocol with one-step detection saves further time by decreasing the number of incubation steps. The performance is carefully compared to other ELISpot kits to assure equivalent sensitivity. In summary, the ELISpot^{PRO} kit is an easy-to-use kit with a performance fully comparable to systems based on biotinylated mAb and Streptavidin-enzyme for detection. The ELISpot^{PRO} is currently available for detection of IFN- γ and IL-4 in human and monkey.

Estimated assay time: 3.5 hours excluding cell-incubation time.

ELISpot^{PRO} procedure



* As automated ELISpot readers may have different preferences with regard to PVDF plate type (white or transparent), both types are available. We normally recommend transparent plates. Please inquire for further information.

**A HRP-conjugated detection antibody is available only with the human and the monkey IFN- γ ELISpot^{PRO} kit. The kit contains TMB as substrate.



ELISpot^{PLUS} kit

Contents:

- 4 PVDF plates
- Capture mAb*
- Biotinylated detection mAb
- Streptavidin-enzyme conjugate (ALP or HRP)
- Substrate (BCIP/NBT or TMB)
- Positive control (CD3-2 mAb)**

Additional material required: Buffers

The ELISpot^{PLUS} kit is an attractive alternative for users who wish to have plates and substrate included, but use their own coating procedures. The ELISpot^{PLUS} kit is available with either ALP- or HRP-enzyme systems.

The ELISpot^{PLUS} kit can be supplied with precoated plates for selected cytokines.

As the first company we can also offer the ELISpot^{PLUS} kit with precoated PVDF strip-plates for human and monkey IFN- γ . Please contact Mabtech for further information.

Estimated assay time: 20 hours including overnight coating but excluding cell-incubation time.
4.5 hours for precoated plates excluding cell-incubation time.

* The kit contains matched quantities of coating and detection antibodies sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of capture antibody.

**The mAb CD3-2 (see page 32) is included as a positive control in the ELISpot^{PLUS} kits for the following cytokines: Human IFN- γ , IL-2, IL-4, IL-5, IL-10, IL-13 and monkey IFN- γ .



ELISpot kit

Contents:

Reagents sufficient for at least 4 plates

- Capture mAb*
- Biotinylated detection mAb
- Streptavidin-enzyme conjugate (ALP or HRP)

Additional material required: Plates, buffers and substrate.

This basic kit includes the essential reagents to set up an ELISpot assay. It leaves the choice of plates and substrate to the user. This kit can be supplied in larger sizes on request.

Estimated assay time: 20 hours including overnight coating but excluding cell-incubation time.

* The kit contains matched quantities of coating and detection antibodies sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of capture antibody.

The ELISA method

The cytokine ELISA (Enzyme-Linked Immuno Sorbent Assay)¹ is a specific and highly sensitive method for quantitative measurements of cytokines or other analytes in solutions. A specific monoclonal antibody able to capture the cytokine of interest is coated on a microtiter plate. A second monoclonal antibody, used for detection, binds a different epitope on the cytokine. The detection antibody is labeled with biotin, which allows subsequent binding of a Streptavidin-conjugated enzyme. Any unbound reagents are washed away. When substrate is added, a color reaction will develop that is proportional to the amount of cytokine bound. The concentration of cytokine is determined by comparison with a standard curve with known concentrations of cytokine.

The sensitivity of an ELISA depends mainly on the affinity of the antibodies and on the amplification system used. The detection limits for cytokine ELISAs are commonly in the lower picogram/ml range.

Mabtech offers ELISA kits in two different formats. All kits utilize monoclonal antibody pairs that display high specificity. The ELISA^{PRO} kit is a complete kit based on precoated plates and includes all reagents and buffers required for an easy and straight-forward assay.

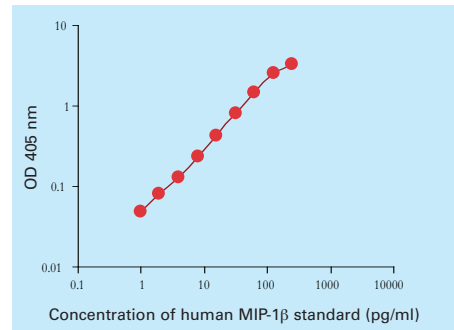
Careful validations have established these kits as highly sensitive tools for quantification of cytokines in both serum/plasma samples and in cell supernatant. Our basic ELISA kit consists of a pair of matched monoclonal antibodies, Streptavidin-enzyme conjugate and a standard. Enzyme conjugates are based on either alkaline phosphatase (ALP) or horseradish peroxidase (HRP).

To enable a correct quantification of the cytokines, recombinant cytokine standards calibrated against international standards from NIBSC (National Institute for Biological Standards and Control) or NIAID (National Institute of Allergy and Infectious Diseases) are included with most of the kits.

The monoclonal antibodies and Streptavidin-enzyme conjugates can also be obtained separately, enabling alternative assay designs.

The basic ELISA kits supplied by Mabtech cover a number of cytokines and other analytes e.g. MIP-1 β , Perforin, Granzyme B, ApoA1, ApoB and total IgE. Please see list of analytes for which ELISA^{PRO} kits are available.

1. Engvall E and Perlmann P. Enzyme-linked immunosorbent assay (ELISA). Quantitative assay of immunoglobulin G. *Immunochimistry* 18: 871, 1971.



Representative titration of recombinant MIP-1 β with the new human MIP-1 β ELISA kit.

Overview of range of Mabtech ELISA kits

Species	Analyte	ELISA ^{PRO}	ELISA kit	Standard supplied	Calibrated against internat. reference
Human	GM-CSF	●	●	●	●
	Granzyme B		●	●	
	IFN- α (subtype 2)		●	●	●
	IFN- α (subtype 8, 10, 14, 17)		●	●	●
	IFN- α (pan specific)	●	●	●	●
	IFN- γ	●	●	●	●
	IL-1 β (IL-1F2)		●	●	●
	IL-2	●	●	●	●
	IL-4		●	●	●
	IL-5		●	●	●
	IL-6	●	●	●	●
	IL-10	●	●	●	●
	IL-12 (total)*	●	●	●	●
	IL-12 (p70)		●	●	●
	IL-13		●	●	●
	MIP-1 β		●	●	
	Perforin	●	●	●	
	TNF- α		●	●	●
Monkey**	ApoA1		●	●	
	ApoB		●	●	
	IgE		●	●	●
	IFN- γ	●	●	●	●
	IL-2	●	●	●	●
	IL-4		●	●	●
	IL-5		●	●	●
	IL-6	●	●	●	●
	IL-12 (total)*	●	●	●	●
	IL-13		●	●	●
Mouse	GM-CSF	●	●	●	●
	Perforin	●	●	●	
	IFN- γ	●	●	●	●
	IL-2	●	●	●	●
	IL-4		●	●	●
	IL-5		●	●	
	IL-10		●	●	
Rat	IL-12 (total)*	●	●	●	
	IL-12 (p70)	●	●	●	
	IFN- γ		●	●	
	IFN- γ		●	●	
	IFN- γ		●	●	
	IFN- γ		●	●	
	IFN- γ		●	●	
	IFN- γ		●	●	
Bovine	IFN- γ		●	●	
	IFN- γ		●	●	
Ovine***	IFN- γ		●	●	
Equine	IFN- γ		●	●	
Porcine	IFN- γ		●	●	

* The standard is IL-12 p70.
** The standards supplied in the Monkey ELISA kits are human proteins.
*** The standard supplied for the Ovine ELISA kits is a recombinant bovine standard.
The monkey systems have been validated with rhesus and cynomolgus macaque samples.



ELISA^{PRO} kit

- Contents:**
Complete kit with 2 or 10 plates
- Precoated 96-well strip-plates
 - Biotinylated detection mAb
 - Streptavidin-HRP
 - TMB substrate
 - Cytokine standard (where available, cytokine standards have been calibrated against international references from NIBSC or NIAID, please see table on page 15 for details)
 - Buffers, diluents, stop solution, adhesive plate covers



ELISA kit

- Contents:**
Reagents sufficient for 6 or 20 plates
- Capture mAb
 - Biotinylated detection mAb
 - Streptavidin-enzyme conjugate (ALP or HRP)
 - Cytokine standard (where available, cytokine standards have been calibrated against international references from NIBSC or NIAID, please see table on page 15 for details)
- Additional material required: Plates, buffers and substrate.

ELISA diluent

Mabtech's ELISA diluent is a buffer for dilution/incubation of ELISA standards, samples and biotinylated detection antibodies. When analyzing human serum/plasma samples by ELISA, heterophilic antibodies (human antibodies reactive with animal immunoglobulins) that are present in a majority of human serum/plasma samples can cross-link the capture and detection antibodies in the assay and cause false-positive signals. Mabtech's ELISA diluent has been developed to prevent interference by human heterophilic antibodies and is included in all ELISA^{PRO} kits. It can also be purchased separately for use in combination with the basic ELISA kits (see page 101).

Overview of contents in Mabtech ELISA kits

Contents	ELISA ^{PRO}	ELISA kit
Capture antibody		•
96-well strip-plates precoated with capture mAb	•	
Cytokine standard	•	•
Biotinylated detection antibody	•	•
Streptavidin-enzyme conjugate (ELISA ^{PRO} kit: only HRP; ELISA kit: HRP or ALP)	•	•
Standard reconstitution buffer	•	
Wash buffer	•	
ELISA diluent	•	
Streptavidin-HRP diluent	•	
TMB substrate	•	
Stop solution	•	
Adhesive plate covers	•	

GM-CSF

GRANULOCYTE MACROPHAGE - COLONY STIMULATING FACTOR

Monoclonal antibodies:

21C11 (rat IgG2a)

23B6 (rat IgG2a)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (21C11, 23B6)

Specificity: Native and recombinant human GM-CSF. The antibodies also react with native GM-CSF from rhesus and cynomolgus macaques.

ELISpot/ELISA: The two antibodies recognize different epitopes of GM-CSF; mAb 21C11 is suitable for capture and mAb 23B6 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

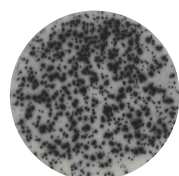
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3480-3-250	anti-h-GM-CSF mAb 21C11, purified	250 µg
3480-3-1000	anti-h-GM-CSF mAb 21C11, purified	1 mg
3480-6-250	anti-h-GM-CSF mAb 23B6, biotinylated	250 µg
3480-6-1000	anti-h-GM-CSF mAb 23B6, biotinylated	1 mg

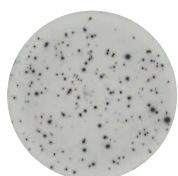
For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of GM-CSF-producing cells in cell cultures.



LPS
50 000 cells



PHA
50 000 cells



No stimuli
50 000 cells

GM-CSF response to polyclonal activator. Human PBMC were incubated for 20 hours in the presence of LPS, PHA or medium alone (no stimuli).

GM-CSF ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3480-2AW-Plus	h-GM-CSF ELISpot ^{PLUS} kit	ALP	4 white plates
3480-2HW-Plus	h-GM-CSF ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

GM-CSF ELISpot kit

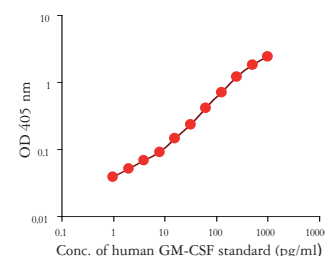
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3480-2A	h-GM-CSF ELISpot kit	ALP	for 4 plates*
3480-2H	h-GM-CSF ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human GM-CSF in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. All kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant GM-CSF standard using an ELISA kit from Mabtech.

GM-CSF ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3480-1HP-2	h-GM-CSF ELISA ^{PRO} kit	2 plates
3480-1HP-10	h-GM-CSF ELISA ^{PRO} kit	10 plates

GM-CSF ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 6 - 600 pg/ml.

Product code	Product description	SA-Enzyme	Quantity
3480-1A-6	h-GM-CSF ELISA kit	ALP	for 6 plates
3480-1A-20	h-GM-CSF ELISA kit	ALP	for 20 plates
3480-1H-6	h-GM-CSF ELISA kit	HRP	for 6 plates
3480-1H-20	h-GM-CSF ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Selected references using reagents from Mabtech

– Makitalo B, *et al.* ELISpot and ELISA analysis of spontaneous, mitogen-induced and antigen-specific cytokine production in cynomolgus and rhesus macaques. *J. Immunol. Methods* 270: 85, 2002.

Granzyme B

Monoclonal antibodies:

GB10 (mouse IgG1)

GB11 (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (GB11)

Specificity: Native human Granzyme B.

ELISpot/ELISA: The two antibodies recognize different epitopes of Granzyme B; mAb GB10 is suitable for capture and mAb GB11 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

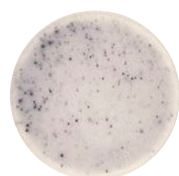
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3485-3-250	anti-h-Granzyme B mAb GB10, purified	250 µg
3485-3-1000	anti-h-Granzyme B mAb GB10, purified	1 mg
3485-6-250	anti-h-Granzyme B mAb GB11, biotinylated	250 µg
3485-6-1000	anti-h-Granzyme B mAb GB11, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

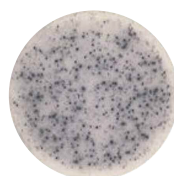
For enumeration of Granzyme B-producing cells in cell cultures.



CEF peptide pool
250 000 cells



No stimuli
250 000 cells



PHA
50 000 cells

Antigen specific induction of human Granzyme B. Human PBMC were stimulated with CEF peptide pool or cultured in medium alone (no stimuli) for 16 hours. Phytohemagglutinin (PHA) was used as a positive control.

Granzyme B ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3485-2AW-Plus	h-Granzyme B ELISpot ^{PLUS} kit	ALP	4 white plates
3485-2HW-Plus	h-Granzyme B ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

Granzyme B ELISpot kit

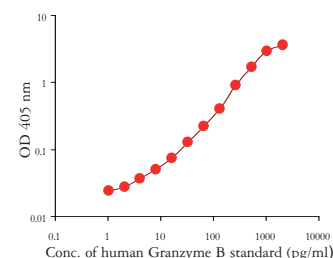
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3485-2A	h-Granzyme B ELISpot kit	ALP	for 4 plates*
3485-2H	h-Granzyme B ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human Granzyme B in solution, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a Granzyme B standard derived from human YT cells. No international standard exists for calibration.



Representative titration of human Granzyme B standard using an ELISA kit from Mabtech.

Granzyme B ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • Granzyme B standard
• The standard range is 13 - 1300 pg/ml.

Product code	Product description	SA-Enzyme	Quantity
3485-1A-6	h-Granzyme B ELISA kit	ALP	for 6 plates
3485-1A-20	h-Granzyme B ELISA kit	ALP	for 20 plates
3485-1H-6	h-Granzyme B ELISA kit	HRP	for 6 plates
3485-1H-20	h-Granzyme B ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

– Zuber B, *et al.* Detection of human perforin by ELISpot and ELISA: Ex vivo identification of virus-specific cells. *J. Immunol. Methods* 302: 13, 2005.

Interferon- α (subtype 2)

There are multiple human IFN- α genes of which at least 13 are transcribed. This results in 12 different functional IFN- α subtype proteins since IFN- α 1 and IFN- α 13 are identical. The IFN- α subtypes display high homology with each other. The subtype specificity of antibodies to IFN- α differs and needs to be defined for each antibody or for each capture/detection antibody combination. Mabtech provides three different IFN- α ELISpot/ELISA systems that have been well defined with regards to their respective capacity to detect different IFN- α subtypes.

Monoclonal antibodies:

MT-1 (mouse IgG1)

MT-2 (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: The MT-1/MT-2 combination of antibodies reacts with native and recombinant human IFN- α subtype 2. It has a weak reactivity towards subtype 6. The MT-1/MT-2 combination does not react with subtypes 1, 4, 5, 7, 8, 10, 13, 14, 16, 17 and 21.

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- α ; mAb MT-1 is suitable for capture and mAb MT-2 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

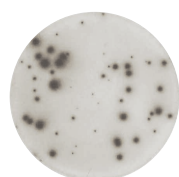
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3423-3-250	anti-h-IFN- α mAb MT-1, purified	250 μ g
3423-3-1000	anti-h-IFN- α mAb MT-1, purified	1 mg
3423-6-250	anti-h-IFN- α mAb MT-2, biotinylated	250 μ g
3423-6-1000	anti-h-IFN- α mAb MT-2, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- α -producing cells in cell cultures.



CpG-ODN
250 000 cells



No stimuli
250 000 cells

IFN- α response to immunostimulatory deoxynucleotides. Human PBMC were stimulated with CpG-ODN or cultured in medium alone (no stimuli).

IFN- α ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3423-2AW-Plus	h-IFN- α MT-1/2 ELISpot ^{PLUS} kit	ALP	4 white plates
3423-2HW-Plus	h-IFN- α MT-1/2 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- α ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

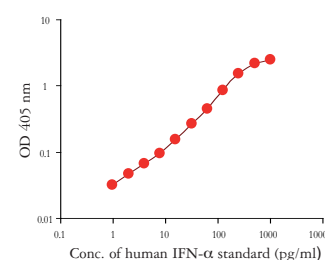
Product code	Product description	SA-Enzyme	Quantity
3423-2A	h-IFN- α MT-1/2 ELISpot kit	ALP	for 4 plates*
3423-2H	h-IFN- α MT-1/2 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of human IFN- α in solution, e.g. cell culture supernatant.

Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IFN- α standard using an ELISA kit from Mabtech.

IFN- α ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 4 - 400 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3423-1A-6	h-IFN- α MT-1/2 ELISA kit	ALP	for 6 plates
3423-1A-20	h-IFN- α MT-1/2 ELISA kit	ALP	for 20 plates
3423-1H-6	h-IFN- α MT-1/2 ELISA kit	HRP	for 6 plates
3423-1H-20	h-IFN- α MT-1/2 ELISA kit	HRP	for 20 plates

Interferon- α (subtype 8, 10, 14, 17)

There are multiple human IFN- α genes of which at least 13 are transcribed. This results in 12 different functional IFN- α subtype proteins since IFN- α 1 and IFN- α 13 are identical. The IFN- α subtypes display high homology with each other. The subtype specificity of antibodies to IFN- α differs and needs to be defined for each antibody or for each capture/detection antibody combination. Mabtech provides three different IFN- α ELISpot/ELISA systems that have been well defined with regards to their respective capacity to detect different IFN- α subtypes.

Monoclonal antibodies:

MT-3 (mouse IgG1)

MT-4 (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: The MT-3/MT-4 combination of antibodies reacts with native and recombinant human IFN- α subtypes 8, 10, 14 and 17. It has a weak reactivity toward subtypes 2 and 7. The MT-3/MT-4 combination does not react with subtypes 1, 4, 5, 6, 13, 16 and 21.

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- α ; mAb MT-3 is suitable for capture and mAb MT-4 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3424-3-250	anti-h-IFN- α mAb MT-3, purified	250 μ g
3424-3-1000	anti-h-IFN- α mAb MT-3, purified	1 mg
3424-6-250	anti-h-IFN- α mAb MT-4, biotinylated	250 μ g
3424-6-1000	anti-h-IFN- α mAb MT-4, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- α -producing cells in cell cultures.



CpG-ODN
250 000 cells



No stimuli
250 000 cells

IFN- α response to immunostimulatory deoxynucleotides. Human PBMC were stimulated with CpG-ODN or cultured in medium alone (no stimuli).

IFN- α ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3424-2AW-Plus	h-IFN- α MT-3/4 ELISpot ^{PLUS} kit	ALP	4 white plates
3424-2HW-Plus	h-IFN- α MT-3/4 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- α ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

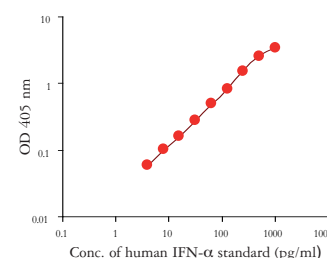
Product code	Product description	SA-Enzyme	Quantity
3424-2A	h-IFN- α MT-3/4 ELISpot kit	ALP	for 4 plates*
3424-2H	h-IFN- α MT-3/4 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of human IFN- α in solution, e.g. cell culture supernatant.

Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human IFN- α standard using an ELISA kit from Mabtech.

IFN- α ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 4 - 400 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3424-1A-6	h-IFN- α MT-3/4 ELISA kit	ALP	for 6 plates
3424-1A-20	h-IFN- α MT-3/4 ELISA kit	ALP	for 20 plates
3424-1H-6	h-IFN- α MT-3/4 ELISA kit	HRP	for 6 plates
3424-1H-20	h-IFN- α MT-3/4 ELISA kit	HRP	for 20 plates

Interferon- α (pan specific)

There are multiple human IFN- α genes of which at least 13 are transcribed. This results in 12 different functional IFN- α subtype proteins since IFN- α 1 and IFN- α 13 are identical. The IFN- α subtypes display high homology with each other. The subtype specificity of antibodies to IFN- α differs and needs to be defined for each antibody or for each capture/detection antibody combination. Mabtech provides three different IFN- α ELISpot/ELISA systems that have been well defined with regards to their respective capacity to detect different IFN- α subtypes.

Monoclonal antibodies:

MT-1/-3/-5 (all mouse IgG1)

MT-2/-4/-6 (all mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: This combination, based on multiple-antibodies MT-1/-3/-5 recommended for capture and MT-2/-4/-6 for detection, is able to detect all subtypes recognized by the separate systems MT-1/MT-2 and MT-3/M-4 and additionally also detects IFN- α subtypes 4, 5, 7 and 16. This pan specific system does not react with IFN- α 1/13, 6 or 21.

ELISpot/ELISA: The pan specific system based on multiple IFN- α mAbs can detect a broad panel of IFN- α subtypes (2, 4, 5, 7, 8, 10, 14, 16 and 17) with strong reactivity. The multiple antibodies recognize different epitopes of IFN- α . The antibody combinations are available in kits for both ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3425-3-250	anti-h-IFN- α mAbs MT-1/-3/-5, purified	250 μ g
3425-3-1000	anti-h-IFN- α mAbs MT-1/-3/-5, purified	1 mg
3425-6-250	anti-h-IFN- α mAbs MT-2/-4/-6, biotinylated	250 μ g
3425-6-1000	anti-h-IFN- α mAbs MT-2/-4/-6, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- α -producing cells in cell cultures.



CpG-ODN
250 000 cells



No stimuli
250 000 cells

IFN- α response to immunostimulatory deoxynucleotides. Human PBMC were stimulated with CpG-ODN or cultured in medium alone (no stimuli).

IFN- α ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3425-2AW-Plus	h-IFN- α pan ELISpot ^{PLUS} kit	ALP	4 white plates
3425-2HW-Plus	h-IFN- α pan ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- α ELISpot kit

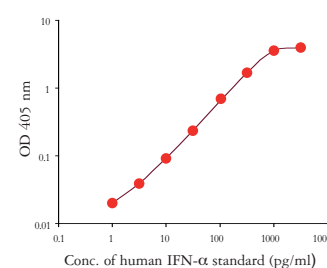
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3425-2A	h-IFN- α pan ELISpot kit	ALP	for 4 plates*
3425-2H	h-IFN- α pan ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of human IFN- α in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human IFN- α standard using an ELISA kit from Mabtech.

IFN- α ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3425-1HP-2	h-IFN- α pan ELISA ^{PRO} kit	2 plates
3425-1HP-10	h-IFN- α pan ELISA ^{PRO} kit	10 plates

IFN- α ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 7 - 700 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3425-1A-6	h-IFN- α pan ELISA kit	ALP	for 6 plates
3425-1A-20	h-IFN- α pan ELISA kit	ALP	for 20 plates
3425-1H-6	h-IFN- α pan ELISA kit	HRP	for 6 plates
3425-1H-20	h-IFN- α pan ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Interferon- γ

Monoclonal antibodies:

1-D1K (mouse IgG1)
7-B6-1 (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,
Flow Cytometry (1-D1K)

Specificity: Native and recombinant human IFN- γ and native IFN- γ from chimpanzee.

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb 1-D1K is suitable for capture and mAb 7-B6-1 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

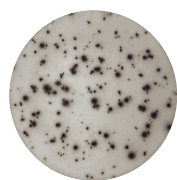
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3420-3-250	anti-h-IFN- γ mAb 1-D1K, purified	250 μ g
3420-3-1000	anti-h-IFN- γ mAb 1-D1K, purified	1 mg
3420-6-250	anti-h-IFN- γ mAb 7-B6-1, biotinylated	250 μ g
3420-6-1000	anti-h-IFN- γ mAb 7-B6-1, biotinylated	1 mg
3420-7	anti-h-IFN- γ mAb 1-D1K, FITC	250 μ g

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



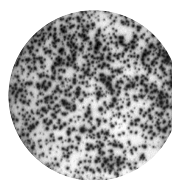
PPD
250 000 cells



No stimuli
50 000 cells



CEF peptide pool
250 000 cells



CD3 stimulation (CD3-2)
50 000 cells

IFN- γ response to antigen. Human PBMC were stimulated with Purified Protein Derivate (PPD) or cultured in medium alone (no stimuli) for 16 hours. The CEF peptide pool and CD3 stimulation using the CD3-2 mAb were used as positive controls (see page 32).

IFN- γ ELISpot^{PRO} kit

Contents: • precoated PVDF plates • ALP- or HRP-labeled detection mAb • BCIP/NBT or TMB substrate
• positive control (CD3-2)

Product code	Product description	Plate	mAb-Enzyme	Quantity
3420-2APT-2	h-IFN- γ ELISpot ^{PRO} kit	transparent	ALP	2 plates
3420-2APT-10	h-IFN- γ ELISpot ^{PRO} kit	transparent	ALP	10 plates
3420-2APW-2	h-IFN- γ ELISpot ^{PRO} kit	white	ALP	2 plates
3420-2APW-10	h-IFN- γ ELISpot ^{PRO} kit	white	ALP	10 plates
3420-2HPT-2	h-IFN- γ ELISpot ^{PRO} kit	transparent	HRP	2 plates
3420-2HPT-10	h-IFN- γ ELISpot ^{PRO} kit	transparent	HRP	10 plates
3420-2HPW-2	h-IFN- γ ELISpot ^{PRO} kit	white	HRP	2 plates
3420-2HPW-10	h-IFN- γ ELISpot ^{PRO} kit	white	HRP	10 plates

IFN- γ ELISpot^{PLUS} kit with regular plates

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420-2AW-Plus	h-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3420-2HW-Plus	h-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot^{PLUS} kit with precoated plates

Contents: • precoated PVDF plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420-4APT-4	h-IFN- γ ELISpot ^{PLUS} kit	ALP	4 transparent plates
3420-4APW-4	h-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3420-4HPT-4	h-IFN- γ ELISpot ^{PLUS} kit	HRP	4 transparent plates
3420-4HPW-4	h-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

IFN- γ ELISpot^{PLUS} kit with precoated strip-plates

Contents: • precoated PVDF strip-plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420-4AST-4	h-IFN- γ ELISpot ^{PLUS} kit	ALP	4 transparent plates
3420-4HST-4	h-IFN- γ ELISpot ^{PLUS} kit	HRP	4 transparent plates

IFN- γ ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3420-2A	h-IFN- γ ELISpot kit	ALP	for 4 plates*
3420-2H	h-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

Interferon- γ

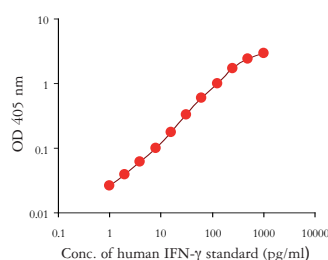
Selected references using IFN- γ reagents from Mabtech

Human IFN- γ ELISpot^{PRO}:

- Liebeschuetz S, *et al.* Diagnosis of tuberculosis in South African children with a T-cell-based assay: a prospective cohort study. *Lancet* 364: 2196, 2004.
 - Liu XQ, *et al.* Evaluation of T-cell Responses to Novel RD1- and RD2-Encoded *Mycobacterium tuberculosis* Gene Products for Specific detection of Human Tuberculosis Infection. *Infect. Immun.* 72: 2574, 2004.
 - Ewer K, *et al.* Comparison of T-cell-based assay with tuberculin skin test for diagnosis of *Mycobacterium tuberculosis* infection in a school tuberculosis outbreak. *Lancet* 361: 1168, 2003.
- ### Human IFN- γ ELISpot:
- Andersen MH, *et al.* Spontaneous Immunity against Bcl-x_L in Cancer Patients. *J. Immunol.* 175: 2709, 2005.
 - Sacre K, *et al.* Repertoire, diversity, and differentiation of specific CD8 T cells are associated with immune protection against human cytomegalovirus disease. *J. Exp. Med.* 201: 1999, 2005.
 - Lichterfeld M, *et al.* Loss of HIV-1-specific CD8⁺ T Cell Proliferation after Acute HIV-1 Infection and Restoration by Vaccine-induced HIV-1-specific CD 4⁺ T Cells. *J. Exp. Med.* 200: 701, 2004.
 - Reece WH, *et al.* A CD4(+) T-cell immune response to a conserved epitope in the circumsporozoite protein correlates with protection from natural *Plasmodium falciparum* infection and disease. *Nature Med.* 10: 406, 2004.
 - Wang R, *et al.* Induction in humans of CD8⁺ and CD4⁺ T cell and antibody responses by sequential immunization with malaria DNA and recombinant protein. *J. Immunol.* 172: 5561, 2004.
 - Mongkolsapaya J, *et al.* Original antigenic sin and apoptosis in the pathogenesis of dengue hemorrhagic fever. *Nature Med.* 9: 921, 2003.
 - Schuler-Turner B, *et al.* Rapid induction of tumor-specific type 1 T helper cells in metastatic melanoma patients by vaccination with mature, cryopreserved, peptide-loaded monocyte-derived dendritic cells. *J. Exp. Med.* 195: 1279, 2002.
 - Makedonas G, *et al.* HIV-specific CD8 T-cell activity in uninfected injection drug users is associated with maintenance of sero-negativity. *AIDS* 16: 1595, 2002.
 - Larsson M, *et al.* Amplification of low-frequency antiviral CD8⁺ type 1 responses using autologous dendritic cells. *AIDS* 16: 171, 2002.
 - Kabilan L, *et al.* Detection of intracellular expression and secretion of Interferon-gamma at the single-cell level after activation of human T cells with tetanus toxoid in vitro. *Eur. J. Immunol.* 20: 1085, 1990.
 - Czerkinsky C, *et al.* Reverse ELISpot assay for clonal analysis of cytokine production. I. Enumeration of gamma-Interferon secreting cells. *J. Immunol. Methods* 110: 29, 1988.
 - Oseroff C, *et al.* HLA class I-restricted responses to vaccinia recognize a broad array of proteins mainly involved in virulence and viral gene regulation. *Proc. Natl. Acad. Sci. USA* 27:102: 13980, 2005.
 - Iversen AKN, *et al.* Conflicting selective forces affect T cell receptor contacts in an immunodominant human immunodeficiency virus epitope. *Nat. Immunol.* 7(2): 179, 2006.
 - Goonetilleke N, *et al.* Induction of multifunctional human immunodeficiency virus type 1 (HIV-1)-specific T cells capable of proliferation in healthy subjects by using a prime-boost regimen of DNA- and modified vaccinia virus Ankara-vectored vaccines expressing HIV-1 Gag coupled to CD8⁺ T-cell epitopes. *J. Virol.* 80(10): 4717, 2006.
 - Simmons CP, *et al.* Early T-cell responses to dengue virus epitopes in Vietnamese adults with secondary dengue virus infections. *J. Virol.* 79(9): 5665, 2005.
 - Dunachie SJ, *et al.* A DNA prime-modified vaccinia virus ankara boost vaccine encoding thrombospondin-related adhesion protein but not circumsporozoite protein partially protects healthy malaria-naïve adults against *Plasmodium falciparum* sporozoite challenge. *Infect. Immun.* 74(10): 5933, 2006.
 - Burton CT, *et al.* Rapid qualitative and quantitative analysis of T-cell responses in HIV-1-infected individuals receiving successful HAART and HIV-1 sero-negative controls: concomitant assessment of perforin, IFN-gamma and IL-4 secretion. *J. Immunol. Methods* 308: 216, 2006.

ELISA

For quantitative determination of human IFN- γ in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant cytokine standard calibrated against an international standard (NIAID).



Representative titration of human recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard
• wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution
• adhesive plate covers

Product code	Product description	Quantity
3420-1HP-2	h-IFN- γ ELISA ^{PRO} kit	2 plates
3420-1HP-10	h-IFN- γ ELISA ^{PRO} kit	10 plates

IFN- γ ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 4 - 400 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3420-1A-6	h-IFN- γ ELISA kit	ALP	for 6 plates
3420-1A-20	h-IFN- γ ELISA kit	ALP	for 20 plates
3420-1H-6	h-IFN- γ ELISA kit	HRP	for 6 plates
3420-1H-20	h-IFN- γ ELISA kit	HRP	for 20 plates

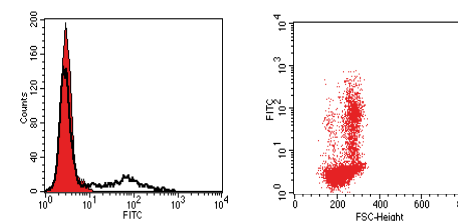
*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Human IFN- γ ELISA:

- Demissie A, *et al.* Healthy individuals that control a latent infection with *Mycobacterium tuberculosis* express high levels of Th1 cytokines and the IL-4 antagonist IL-4delta2. *J. Immunol.* 172: 6938 2004.
- Chalifour A, *et al.* Direct bacterial protein PAMP recognition by human NK cells involves TLRs and triggers alpha-defensin production. *Blood* 104: 1778, 2004.
- Lundin BS, *et al.* Oral immunization with a *Salmonella enterica* serovar typhi vaccine induces specific circulating mucosa-homing CD4⁽⁺⁾ and CD8⁽⁺⁾ T cells in human. *Infect. Immun.* 70: 5622, 2002.
- Passoni L, *et al.* ALK as a novel lymphoma-associated tumor antigen: identification of 2 HLA-A2.1-restricted CD8⁺ T-cell epitopes. *Blood* 99: 2100, 2002.

FLOW CYTOMETRY

For quantitative determination of human IFN- γ by flow cytometry.



Stimulated PBMC were stained with FITC-conjugated anti-IFN- γ mAb 1-D1K (bold line) or a FITC-labeled isotype control mAb (filled histogram). The data reflect gating on PBMC, based on forward and side scatter.

Product code	Product description	Quantity
3420-7	anti-h-IFN- γ mAb 1-D1K, FITC	250 μ g

For conjugates with fluorescent molecules other than presented here, please inquire.

CD3 stimulation (positive control)

Monoclonal antibody:

CD3-2 (mouse IgG2a)

Applications:

Positive control for T-cell stimulation in ELISpot.

The anti-CD3 mAb CD3-2 is useful for activation of T cells in solution. The antibody solution does not contain any preservatives. Suitable as positive control for IFN- γ production in human PBMC. It is also applicable for stimulation of IL-2, IL-4, IL-5, IL-10 and IL-13 production.

Recommended concentration for stimulation: 100 ng/ml.

The antibody can also be used for activation of IFN- γ production in cynomolgus macaque (see page 64).

Product code	Product description	Quantity
3605-1-50	anti-CD3 mAb CD3-2, purified	500 μ l (100 μ g/ml)

CEF Peptide Pool (positive control)

Peptides:

23 peptides

Applications:

Positive control for CD8⁺ antigen stimulation in ELISpot.

MHC class I-restricted T-cell epitopes from human cytomegalovirus, Epstein-Barr virus and influenza (flu) virus (CEF) designed to stimulate T cells from donors with a variety of HLA types. The pool of 23 peptides stimulates CD8⁺ T cells to produce preferentially IFN- γ . The CEF Peptide Pool is useful as a positive control in ELISpot assays using human PBMC. The synthetic peptides are HPLC-purified to >95%.

Recommended concentration for stimulation: 2 μ g of each peptide/ml.

Product code	Product description	Quantity
3615-1	CEF Peptide Pool	100 μ l (200 μ g/peptide/ml)

References

- Currier JR, *et al.* A panel of MHC class I restricted viral peptides for use as a quality control for vaccine trial ELISpot assays. *J. Immunol. Methods* 260: 157, 2002.
- Raeiszadeh M, *et al.* The T cell response to persistent herpes virus infections in common variable immunodeficiency. *Clin. Exp. Immunol.* 146: 234, 2006.
- Jarefors S, *et al.* Reduced number of interleukin-12 secreting cells in patients with Lyme borreliosis previously exposed to Anaplasma phagocytophilum. *Clin. Exp. Immunol.* 143: 322, 2006.

Interleukin-1 β (IL-1F2)

Monoclonal antibodies:

IL1 β -I (mouse IgG2b)

IL1 β -II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-1 β (IL-1F2 according to the new nomenclature).

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-1 β ; mAb IL1 β -I is suitable for capture and mAb IL1 β -II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

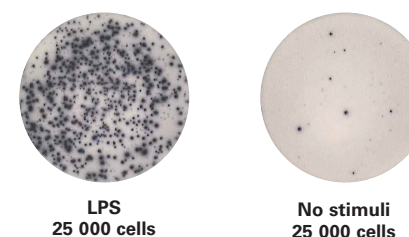
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3415-3-250	anti-h-IL-1 β mAb IL1 β -I, purified	250 μ g
3415-3-1000	anti-h-IL-1 β mAb IL1 β -I, purified	1 mg
3415-6-250	anti-h-IL-1 β mAb IL1 β -II, biotinylated	250 μ g
3415-6-1000	anti-h-IL-1 β mAb IL1 β -II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-1 β -producing cells in cell cultures.



IL-1 β response to LPS. Human PBMC were stimulated with LPS or cultured in medium alone (no stimuli) for 20 hours.

IL-1 β ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3415-2AW-Plus	h-IL-1 β ELISpot ^{PLUS} kit	ALP	4 white plates
3415-2HW-Plus	h-IL-1 β ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-1 β ELISpot kit

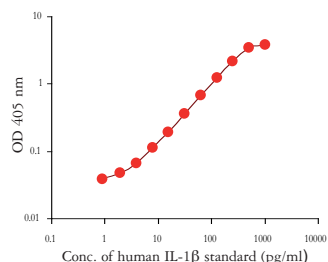
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP			
Product code	Product description	SA-Enzyme	Quantity
3415-2A	h-IL-1 β ELISpot kit	ALP	for 4 plates*
3415-2H	h-IL-1 β ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

Interleukin-1 β (IL-1F2)

ELISA

For quantitative determination of human IL-1 β in solution, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-1 β standard using an ELISA kit from Mabtech.

IL-1 β ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 3 - 300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3415-1A-6	h-IL-1 β ELISA kit	ALP	for 6 plates
3415-1A-20	h-IL-1 β ELISA kit	ALP	for 20 plates
3415-1H-6	h-IL-1 β ELISA kit	HRP	for 6 plates
3415-1H-20	h-IL-1 β ELISA kit	HRP	for 20 plates

Interleukin-2

Monoclonal antibodies:

IL2-I (mouse IgG1)

IL2-II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-2.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-2; mAb IL2-I is suitable for capture and mAb IL2-II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

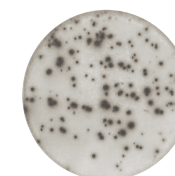
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3440-3-250	anti-h-IL-2 mAb IL2-I, purified	250 μ g
3440-3-1000	anti-h-IL-2 mAb IL2-I, purified	1 mg
3440-6-250	anti-h-IL-2 mAb IL2-II, biotinylated	250 μ g
3440-6-1000	anti-h-IL-2 mAb IL2-II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

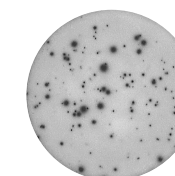
For enumeration of IL-2-producing cells in cell cultures.



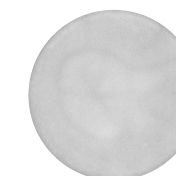
Allergen
250 000 cells



No stimuli
250 000 cells



PHA
250 000 cells



No stimuli
250 000 cells

IL-2 response to Allergen. Human PBMC were stimulated with allergen or cultured in medium alone (no stimuli) for 18 hours.

IL-2 production by human PBMC. Cells were incubated for 16 hours in the presence of PHA or in medium alone (no stimuli).

IL-2 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3440-2AW-Plus	h-IL-2 ELISpot ^{PLUS} kit	ALP	4 white plates
3440-2HW-Plus	h-IL-2 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-2 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

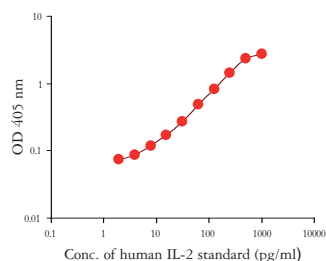
Product code	Product description	SA-Enzyme	Quantity
3440-2A	h-IL-2 ELISpot kit	ALP	for 4 plates*
3440-2H	h-IL-2 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

Interleukin-2

ELISA

For quantitative determination of human IL-2 in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-2 standard using an ELISA kit from Mabtech.

IL-2 ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3440-1HP-2	h-IL-2 ELISA ^{PRO} kit	2 plates
3440-1HP-10	h-IL-2 ELISA ^{PRO} kit	10 plates

IL-2 ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 7 - 700 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3440-1A-6	h-IL-2 ELISA kit	ALP	for 6 plates
3440-1A-20	h-IL-2 ELISA kit	ALP	for 20 plates
3440-1H-6	h-IL-2 ELISA kit	HRP	for 6 plates
3440-1H-20	h-IL-2 ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Interleukin-4

Monoclonal antibodies:

IL4-I (82.4; mouse IgG1)

IL4-II (12.1; mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-4 and native IL-4 from rhesus and cynomolgus macaques.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-4; mAb IL4-I is suitable for capture and mAb IL4-II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3410-3-250	anti-h-IL-4 mAb IL4-I (82.4), purified	250 µg
3410-3-1000	anti-h-IL-4 mAb IL4-I (82.4), purified	1 mg
3410-6-250	anti-h-IL-4 mAb IL4-II (12.1), biotinylated	250 µg
3410-6-1000	anti-h-IL-4 mAb IL4-II (12.1), biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-4-producing cells in cell cultures.



IL-4 response to Allergen. Human PBMC were stimulated with allergen or cultured in medium alone (no stimuli) for 40 hours. Phytohemagglutinin (PHA) was used as a positive control.

IL-4 ELISpot^{PRO} kit

Contents: • precoated PVDF plates • ALP-labeled detection mAb • BCIP/NBT substrate • positive control (CD3-2)

Product code	Product description	Plate	Quantity
3410-2APT-2	h-IL-4 ELISpot ^{PRO} kit	transparent	2 plates
3410-2APT-10	h-IL-4 ELISpot ^{PRO} kit	transparent	10 plates
3410-2APW-2	h-IL-4 ELISpot ^{PRO} kit	white	2 plates
3410-2APW-10	h-IL-4 ELISpot ^{PRO} kit	white	10 plates

Interleukin-4

IL-4 ELISpot^{PLUS} kit with regular plates

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3410-2AW-Plus	h-IL-4 ELISpot ^{PLUS} kit	ALP	4 white plates
3410-2HW-Plus	h-IL-4 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-4 ELISpot^{PLUS} kit with precoated plates

Contents: • precoated PVDF plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3410-4APT-4	h-IL-4 ELISpot ^{PLUS} kit	ALP	4 transparent plates
3410-4APW-4	h-IL-4 ELISpot ^{PLUS} kit	ALP	4 white plates
3410-4HPT-4	h-IL-4 ELISpot ^{PLUS} kit	HRP	4 transparent plates
3410-4HPW-4	h-IL-4 ELISpot ^{PLUS} kit	HRP	4 white plate

IL-4 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3410-2A	h-IL-4 ELISpot kit	ALP	for 4 plates*
3410-2H	h-IL-4 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Selected references using reagents from Mabtech

Human IL-4 ELISpot^{PRO}:

- Minang JT, *et al.* A simplified ELISpot assay protocol used for detection of human interleukin-4, interleukin-13 and interferon-γ production in response to the contact allergen nickel. *Exog. Dermatol.* 2: 306, 2003.

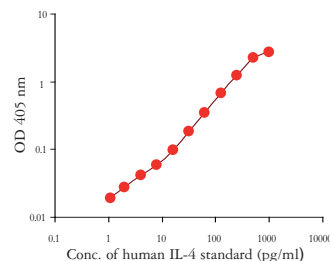
Human IL-4 ELISpot:

- Hallin E, *et al.* In vitro Th2 deviation of myelin-specific peripheral blood lymphocytes from patients with multiple sclerosis. *J Neuroimmunol.* 171:156, 2006.
- Aslam A, *et al.* Defining the T cell antigen proteome of wasp venom. *Clin. Exp. Allergy* 36:1274, 2006.
- Burton CT, *et al.* Rapid qualitative and quantitative analysis of T-cell responses in HIV-1-infected individuals receiving successful HAART and HIV-1 sero-negative controls: concomitant assessment of perforin, IFN-gamma and IL-4 secretion. *J. Immunol. Methods* 308: 216, 2006.
- Farid A, *et al.* Schistosoma infection inhibits cellular immune responses to core HCV peptides. *Parasite Immunology* 27: 189, 2005.

- Ghoreschi K, *et al.* Interleukin-4 therapy of psoriasis induces Th2 responses and improves human autoimmune disease. *Nature Med.* 9: 40, 2003.
- de Waal L, *et al.* Moderate local and systemic respiratory syncytial virus-specific T-cell responses upon mild or subclinical RSV infection. *J. Med. Virol.* 70: 309, 2003.
- Jakobson E, *et al.* Cytokine production in nickel-sensitized individuals analysed with enzyme-linked immunospot assay: possible implication for diagnosis. *Br. J. Dermatol.* 147: 442, 2002.
- Gabrielson S, *et al.* Specific induction of Interleukin-4-producing cells in response to *in vitro* allergen stimulation in atopic individuals. *Clin. Exp. Allergy* 27: 808, 1997.
- ElGhazali G, *et al.* Number of interleukin-4- and interferon-gamma-secreting human T cells reactive with tetanus toxoid and the mycobacterial antigen PPD or phytohemagglutinin: distinct response profiles depending on the type of antigen used for activation. *Eur. J. Immunol.* 23: 2740, 1993.

ELISA

For quantitative determination of human IL-4 in solutions, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-4 standard using an ELISA kit from Mabtech.

IL-4 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 3 - 300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3410-1A-6	h-IL-4 ELISA kit	ALP	for 6 plates
3410-1A-20	h-IL-4 ELISA kit	ALP	for 20 plates
3410-1H-6	h-IL-4 ELISA kit	HRP	for 6 plates
3410-1H-20	h-IL-4 ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

Human IL-4 ELISA:

- Nyakeriga MA, *et al.* Immunoglobulin E (IgE) containing complexes induce IL-4 production in human basophils: effect on Th1-Th2 balance in malaria. *Acta Trop.* 86: 55, 2003.
- Bengtsson A, *et al.* Thiols decrease cytokine levels and down-regulate the expression of CD30 on human allergen-specific T helper (Th) 0 and Th2 cells. *Clin. Exp. Immunol.* 123: 350, 2001.
- Rodrigues V Jr, *et al.* Genetic control of schistosome infections by the SM1 locus of the 5q31-q33 region is linked to differentiation of type 2 helper T lymphocytes. *Infect. Immun.* 67: 4689, 1999.

Interleukin-5

Monoclonal antibodies:

TRFK5 (rat IgG1)

5A10 (rat IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-5. The antibodies also react with native IL-5 from rhesus and cynomolgus macaques, mAb TRFK5 also reacts with native and recombinant mouse IL-5.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-5; mAb TRFK5 is suitable for capture and mAb 5A10 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

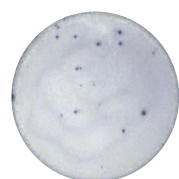
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3490-3-250	anti-h-IL-5 mAb TRFK5, purified	250 µg
3490-3-1000	anti-h-IL-5 mAb TRFK5, purified	1 mg
3490-6-250	anti-h-IL-5 mAb 5A10, biotinylated	250 µg
3490-6-1000	anti-h-IL-5 mAb 5A10, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

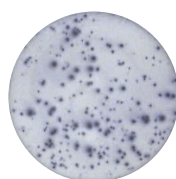
For enumeration of IL-5-producing cells in cell cultures.



Allergen
250 000 cells



No stimuli
250 000 cells



PHA
50 000 cells

IL-5 response to Allergen. Human PBMC were stimulated with allergen or cultured in medium alone (no stimuli) for 40 hours. Phytohemagglutinin (PHA) was used as a positive control.

IL-5 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3490-2AW-Plus	h-IL-5 ELISpot ^{PLUS} kit	ALP	4 white plates
3490-2HW-Plus	h-IL-5 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-5 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3490-2A	h-IL-5 ELISpot kit	ALP	for 4 plates*
3490-2H	h-IL-5 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Selected references using reagents from Mabtech

Human IL-5 ELISpot:

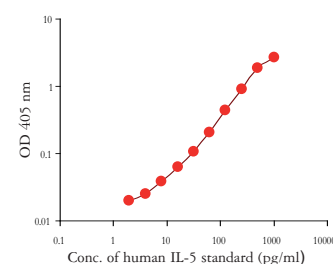
– Gafvelin G, *et al.* Cytokine and Antibody Responses in Birch-Pollen-Allergic Patients Treated with Genetically Modified Derivatives of the Major Birch Pollen Allergen Bet v 1. *Int. Arch. Allergy Immunol.* 138: 59, 2005.

– Jakobson E, *et al.* Cytokine production in nickel-sensitized individuals analysed with enzyme-linked immunospot assay: possible implication for diagnosis. *Br. J. Dermatol.* 147: 442, 2002.

– Szkaradkiewicz A, *et al.* HBcAg-specific cytokine production by CD4 T lymphocytes of children with acute and chronic hepatitis B. *Virus Res.* 97: 127, 2003.

ELISA

For quantitative determination of human IL-5 in solutions, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-5 standard using an ELISA kit from Mabtech.

IL-5 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 6 - 600 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3490-1A-6	h-IL-5 ELISA kit	ALP	for 6 plates
3490-1A-20	h-IL-5 ELISA kit	ALP	for 20 plates
3490-1H-6	h-IL-5 ELISA kit	HRP	for 6 plates
3490-1H-20	h-IL-5 ELISA kit	HRP	for 20 plates

Selected reference using reagents from Mabtech

Human IL-5 ELISA:

– Rowe J, *et al.* Antigen-specific responses to diphtheria-tetanus-acellular pertussis vaccine in human infants are initially Th2 polarized. *Infect. Immun.* 68: 3873, 2000.

Interleukin-6

Monoclonal antibodies:

13A5 (rat IgG1)
39C3 (rat IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-6. The antibodies also react with native IL-6 from rhesus and cynomolgus macaques.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-6; mAb 13A5 is suitable for capture and mAb 39C3 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

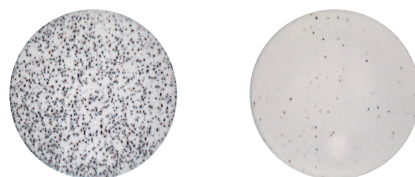
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3460-3-250	anti-h-IL-6 mAb 13A5, purified	250 µg
3460-3-1000	anti-h-IL-6 mAb 13A5, purified	1 mg
3460-6-250	anti-h-IL-6 mAb 39C3, biotinylated	250 µg
3460-6-1000	anti-h-IL-6 mAb 39C3, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-6-producing cells in cell cultures.



LPS
25 000 cells

No stimuli
25 000 cells

IL-6 response to polyclonal activator. Human PBMC were stimulated in presence of LPS or cultured in medium alone (no stimuli) for 4 hours.

IL-6 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3460-2AW-Plus	h-IL-6 ELISpot ^{PLUS} kit	ALP	4 white plates
3460-2HW-Plus	h-IL-6 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-6 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3460-2A	h-IL-6 ELISpot kit	ALP	for 4 plates*
3460-2H	h-IL-6 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Selected references using reagents from Mabtech

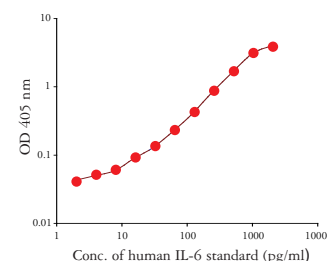
Human IL-6 ELISpot:

– Kouwenhoven M, *et al.* Enzyme-Linked immunospot assays provide a sensitive tool for detection of cytokine secretion by monocytes. *Clin. Diagn. Lab. Immunol.* 8: 1248, 2001.

– Halse A-K, *et al.* Increased frequency of cells secreting Interleukin-6 and Interleukin-10 in peripheral blood of patients with primary Sjögren's syndrome. *Scand. J. Immunol.* 49: 533, 1999.

ELISA

For quantitative determination of human IL-6 in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-6 standard using an ELISA kit from Mabtech.

IL-6 ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP
• cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent
• TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3460-1HP-2	h-IL-6 ELISA ^{PRO} kit	2 plates
3460-1HP-10	h-IL-6 ELISA ^{PRO} kit	10 plates

IL-6 ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 13 - 1300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3460-1A-6	h-IL-6 ELISA kit	ALP	for 6 plates
3460-1A-20	h-IL-6 ELISA kit	ALP	for 20 plates
3460-1H-6	h-IL-6 ELISA kit	HRP	for 6 plates
3460-1H-20	h-IL-6 ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Selected reference using reagents from Mabtech

Human IL-6 ELISA:

– Nilsson J, *et al.* Thioredoxin prolongs survival of B-type chronic lymphocytic leukemia cells. *Blood* 95: 1420, 2000.

Interleukin-10

Monoclonal antibodies:

9D7 (rat IgG1)
12G8 (rat IgG2a)

Applications:

ELISpot, ELISA, Immunocytochemistry,
Flow Cytometry (12G8)

Specificity: Native and recombinant human IL-10.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-10; mAb 9D7 is suitable for capture and mAb 12G8 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

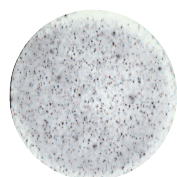
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3430-3-250	anti-h-IL-10 mAb 9D7, purified	250 µg
3430-3-1000	anti-h-IL-10 mAb 9D7, purified	1 mg
3430-6-250	anti-h-IL-10 mAb 12G8, biotinylated	250 µg
3430-6-1000	anti-h-IL-10 mAb 12G8, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-10-producing cells in cell cultures.



TT
300 000 cells



No stimuli
300 000 cells



PHA
50 000 cells

Antigen specific IL-10 production. Human PBMC were stimulated in presence of tetanus toxoid (TT) or cultured in medium alone (no stimuli) for 40 hours. PHA was used as a positive control.

IL-10 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3430-2AW-Plus	h-IL-10 ELISpot ^{PLUS} kit	ALP	4 white plates
3430-2HW-Plus	h-IL-10 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-10 ELISpot kit

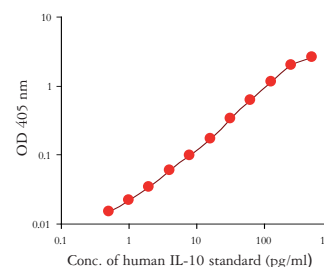
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3430-2A	h-IL-10 ELISpot kit	ALP	for 4 plates*
3430-2H	h-IL-10 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human IL-10 in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-10 standard using an ELISA kit from Mabtech.

IL-10 ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP
• cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent
• TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3430-1HP-2	h-IL-10 ELISA ^{PRO} kit	2 plates
3430-1HP-10	h-IL-10 ELISA ^{PRO} kit	10 plates

IL-10 ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 0.5 - 300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3430-1A-6	h-IL-10 ELISA kit	ALP	for 6 plates
3430-1A-20	h-IL-10 ELISA kit	ALP	for 20 plates
3430-1H-6	h-IL-10 ELISA kit	HRP	for 6 plates
3430-1H-20	h-IL-10 ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Selected references using reagents from Mabtech

Human IL-10 ELISpot:

- Rubér M *et al.* Different cytokine profiles in patients with a history of gangrenous or phlegmonous appendicitis. *Clin Exp Immunol.* 143(1):117-24, 2006.
- van Bilsen JH, *et al.* Functional regulatory immune responses against human cartilage glycoprotein-39 in health vs. proinflammatory responses in rheumatoid arthritis. *Proc. Natl. Acad. Sci. USA.* 101: 17180, 2004.
- Ghoreschi K, *et al.* Interleukin-4 therapy of psoriasis induces Th2 responses and improves human autoimmune disease. *Nature Med.* 9: 40, 2003.

- Anderson RP *et al.* In vivo antigen challenge in celiac disease identifies a single transglutaminase-modified peptide as the dominant A-gliadin T-cell epitope. *Nature* 6: 337, 2000.

Human IL-10 ELISA:

- Maasho K, *et al.* Induction and abrogation of LACK reactive cells in the evolution of human leishmaniasis. *Clin. Exp. Immunol.* 124: 255, 2001.
- Gotlieb WH, *et al.* Presence of interleukin-10 (IL-10) in the ascites of patients with ovarian and other intra-abdominal cancers. *Cytokine* 4: 385, 1992.

Interleukin-12 (total)

Monoclonal antibodies:

IL12-I (mouse IgG1)

IL12-II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant p40 subunit of human IL-12/IL-23. The two antibodies recognize different epitopes of p40. In combination, the antibodies detect p40 monomer, p70 heterodimer (p40+p35) and IL-23 (p40+p19). The antibodies also react with IL-12 (total) from rhesus and cynomolgus macaques.

ELISpot/ELISA: mAb IL12-I is suitable for capture and mAb IL12-II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

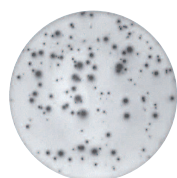
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3450-3-250	anti-h-IL-12 mAb IL12-I, purified	250 µg
3450-3-1000	anti-h-IL-12 mAb IL12-I, purified	1 mg
3450-6-250	anti-h-IL-12 mAb IL12-II, biotinylated	250 µg
3450-6-1000	anti-h-IL-12 mAb IL12-II, biotinylated	1 mg

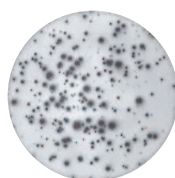
For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-12-producing cells in cell cultures.



LPS
50 000 cells



PHA
50 000 cells



No stimuli
50 000 cells

IL-12 response to polyclonal activator. Human PBMC were stimulated in presence of LPS, PHA or cultured in medium alone (no stimuli).

IL-12 (total) ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3450-2AW-Plus	h-IL-12 (total) ELISpot ^{PLUS} kit	ALP	4 white plates
3450-2HW-Plus	h-IL-12 (total) ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-12 (total) ELISpot kit

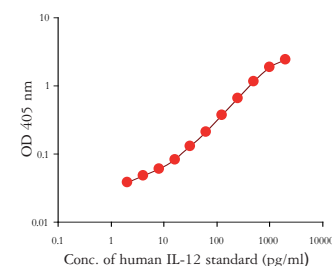
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3450-2A	h-IL-12 (total) ELISpot kit	ALP	for 4 plates*
3450-2H	h-IL-12 (total) ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human IL-12 (total) in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant IL-12 standard (p70 heterodimer) calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-12 standard using an ELISA kit from Mabtech.

IL-12 (total) ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP
• cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent
• TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3450-1HP-2	h-IL-12 (total) ELISA ^{PRO} kit	2 plates
3450-1HP-10	h-IL-12 (total) ELISA ^{PRO} kit	10 plates

IL-12 (total) ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 8 - 800 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3450-1A-6	h-IL-12 (total) ELISA kit	ALP	for 6 plates
3450-1A-20	h-IL-12 (total) ELISA kit	ALP	for 20 plates
3450-1H-6	h-IL-12 (total) ELISA kit	HRP	for 6 plates
3450-1H-20	h-IL-12 (total) ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Selected references using reagents from Mabtech

Human IL-12 (total) ELISpot:

- Misumi M, *et al.* Cytokine production profile in patients with Behcet's disease treated with infliximab. *Cytokine* 24: 210, 2003.
- Gabrielsson S, *et al.* Influence of atopic heredity on IL-4, IL-12- and IFN-gamma-producing cells in *in vitro* activated cord blood mononuclear cells. *Clin. Exp. Immunol.* 126: 390, 2001.
- Ozenci V, *et al.* IL-12 ELISpot assays to detect and enumerate IL-12 secreting cells. *Cytokine* 12: 1218, 2000.

Human IL-12 (total) ELISA:

- Tejde A, *et al.* Immune complex-stimulated production of interleukin-12 in peripheral blood mononuclear cells is regulated by the complement system. *Clin. Exp. Immunol.* 137: 521, 2004.
- Pekkari K, *et al.* Truncated thioredoxin (Trx80) induces production of interleukin-12 and enhances CD14 expression in human monocytes. *Blood* 97: 3184, 2001.

Interleukin-12 (p70)

Monoclonal antibodies:

IL12-I (mouse IgG1)

IL12-III (mouse IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-12 p70 heterodimer (p40+p35). IL12-I binds p40 and IL12-III binds p35. In combination, the two antibodies recognize p70 but not p40 monomer or IL-23 (p40+p19).

ELISpot/ELISA: mAb IL12-I is suitable for capture and mAb IL12-III for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

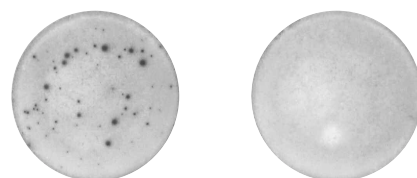
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3450-3-250	anti-h-IL-12 mAb IL12-I, purified	250 µg
3450-3-1000	anti-h-IL-12 mAb IL12-I, purified	1 mg
3450-8-250	anti-h-IL-12 mAb IL12-III, biotinylated	250 µg
3450-8-1000	anti-h-IL-12 mAb IL12-III, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-12 p70-producing cells in cell cultures.



LPS+rhIFN-γ
250 000 cells

No stimuli
250 000 cells

IL-12 p70 production of human PBMC. Cells were stimulated in presence of LPS + rhIFN-γ or cultured in medium alone (no stimuli).

IL-12 (p70) ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3455-2AW-Plus	h-IL-12 (p70) ELISpot ^{PLUS} kit	ALP	4 white plates
3455-2HW-Plus	h-IL-12 (p70) ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-12 (p70) ELISpot kit

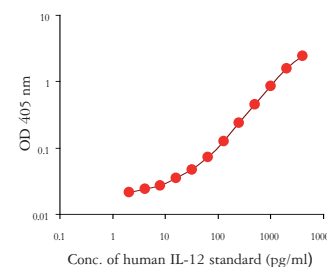
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3455-2A	h-IL-12 (p70) ELISpot kit	ALP	for 4 plates*
3455-2H	h-IL-12 (p70) ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human IL-12 p70 heterodimer in solutions, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant IL-12 standard (p70 heterodimer) calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-12 standard using an ELISA kit from Mabtech.

IL-12 (p70) ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 16 - 1600 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3455-1A-6	h-IL-12 (p70) ELISA kit	ALP	for 6 plates
3455-1A-20	h-IL-12 (p70) ELISA kit	ALP	for 20 plates
3455-1H-6	h-IL-12 (p70) ELISA kit	HRP	for 6 plates
3455-1H-20	h-IL-12 (p70) ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

Human IL-12 p70 ELISpot:

- Sjöwall J, *et al.* Innate immune responses in Lyme borreliosis: enhanced tumour necrosis factor-alpha and interleukin-12 in asymptomatic individuals in response to live spirochetes. *Clin. Exp. Immunol.* 141: 89, 2005.

- Tejeda A, *et al.* Immune complex-stimulated production of interleukin-12 in peripheral blood mononuclear cells is regulated by the complement system. *Clin. Exp. Immunol.* 137: 521, 2004.

Human IL-12 p70 ELISA:

- Osada T, *et al.* Ex vivo expanded human CD4⁺ regulatory NKT cells suppress expansion of tumor antigen-specific CTLs. *Int. Immunol.* 17: 1143, 2005.

- Lundqvist A, *et al.* Recombinant adenovirus vector activates and protects human monocyte-derived dendritic cells from apoptosis. *Hum. Gene Ther.* 13: 1541, 2002.

Interleukin-13

Monoclonal antibodies:

IL13-I (mouse IgG1)

IL13-II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human IL-13. The antibodies also react with native IL-13 from rhesus and cynomolgus macaques.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-13; mAb IL13-I is suitable for capture and mAb IL13-II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3470-3-250	anti-h-IL-13 mAb IL13-I, purified	250 µg
3470-3-1000	anti-h-IL-13 mAb IL13-I, purified	1 mg
3470-6-250	anti-h-IL-13 mAb IL13-II, biotinylated	250 µg
3470-6-1000	anti-h-IL-13 mAb IL13-II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-13-producing cells in cell cultures.



Allergen
300 000 cells



No stimuli
300 000 cells

IL-13 response to allergen. Human PBMC were stimulated with allergen or cultured in medium alone (no stimuli) for 48 hours.

IL-13 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate • positive control (CD3-2)			
Product code	Product description	SA-Enzyme	Quantity
3470-2AW-Plus	h-IL-13 ELISpot ^{PLUS} kit	ALP	4 white plates
3470-2HW-Plus	h-IL-13 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

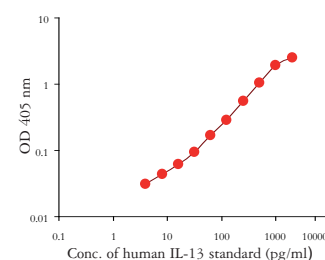
IL-13 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP			
Product code	Product description	SA-Enzyme	Quantity
3470-2A	h-IL-13 ELISpot kit	ALP	for 4 plates*
3470-2H	h-IL-13 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of human IL-13 in solution, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant IL-13 standard using an ELISA kit from Mabtech.

IL-13 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 5 - 500 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3470-1A-6	h-IL-13 ELISA kit	ALP	for 6 plates
3470-1A-20	h-IL-13 ELISA kit	ALP	for 20 plates
3470-1H-6	h-IL-13 ELISA kit	HRP	for 6 plates
3470-1H-20	h-IL-13 ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

Human IL-13 ELISpot:

- Gafvelin G, *et al.* Cytokine and Antibody Responses in Birch-Pollen-Allergic Patients Treated with Genetically Modified Derivatives of the Major Birch Pollen Allergen Bet v 1. *Int. Arch. Allergy Immunol.* 138: 59, 2005.
- Masjedi K, *et al.* Methylisothiazolinones elicit increased production of both T helper (Th)1- and Th2-like cytokines by peripheral blood mononuclear cells from contact allergic individuals. *Br. J. Dermatol.* 149: 1172, 2003.

- de Waal L, *et al.* Moderate local and systemic respiratory syncytial virus-specific T-cell responses upon mild or subclinical RSV infection. *J. Med. Virol.* 70: 309, 2003.

- Jakobson E, *et al.* Cytokine production in nickel-sensitized individuals analysed with enzyme-linked immunospot assay: possible implication for diagnosis. *Br. J. Dermatol.* 147: 442, 2002.

Human IL-13 ELISA:

- van der Pouw Kraan T, *et al.* Human IL-13 production is negatively influenced by CD3 engagement. Enhancement of IL-13 production by Cyclosporin A. *J. Immunol.* 156: 1818, 1996.

MIP-1 β

MACROPHAGE INFLAMMATORY PROTEIN - 1 β

Monoclonal antibodies:

MIP1 β -I (mouse IgG1)

MIP1 β -II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant human MIP-1 β .

ELISpot/ELISA: The two antibodies recognize different epitopes of MIP-1 β ; mAb MIP1 β -I is suitable for capture and mAb MIP1 β -II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

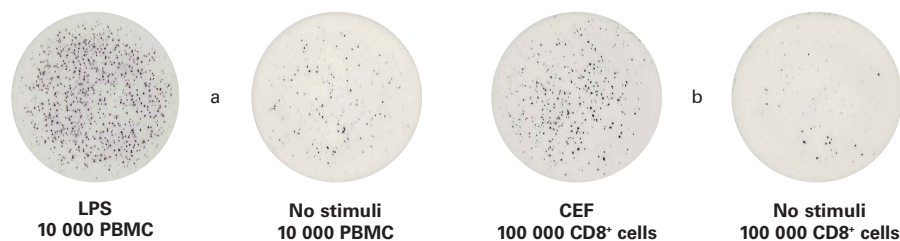
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3495-3-250	anti-h-MIP-1 β mAb MIP1 β -I, purified	250 μ g
3495-3-1000	anti-h-MIP-1 β mAb MIP1 β -I, purified	1 mg
3495-6-250	anti-h-MIP-1 β mAb MIP1 β -II, biotinylated	250 μ g
3495-6-1000	anti-h-MIP-1 β mAb MIP1 β -II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of MIP-1 β -producing cells in cell cultures.



MIP-1 β response to polyclonal activator (a) or CEF pool (see page 32) consisting of common CD8⁺ T-cell epitopes (b). Human PBMC (a) were stimulated with LPS or cultured in medium alone (no stimuli) for 20 hours. Purified CD8⁺ cells (b) were stimulated with CEF pool or cultured in medium alone (no stimuli) for 20 hours.

MIP-1 β ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3495-2AW-Plus	h-MIP-1 β ELISpot ^{PLUS} kit	ALP	4 white plates
3495-2HW-Plus	h-MIP-1 β ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

MIP-1 β ELISpot kit

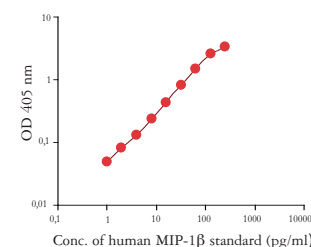
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3495-2A	h-MIP-1 β ELISpot kit	ALP	for 4 plates*
3495-2H	h-MIP-1 β ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of human MIP-1 β in solution, e.g. cell culture supernatant. Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of human recombinant MIP-1 β standard using an ELISA kit from Mabtech.

MIP-1 β ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 2 - 200 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3495-1A-6	h-MIP-1 β ELISA kit	ALP	for 6 plates
3495-1A-20	h-MIP-1 β ELISA kit	ALP	for 20 plates
3495-1H-6	h-MIP-1 β ELISA kit	HRP	for 6 plates
3495-1H-20	h-MIP-1 β ELISA kit	HRP	for 20 plates

Perforin

Monoclonal antibodies:

Pf-80/164 (mouse IgG1)

Pf-344 (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (Pf-344)

Specificity: Native human Perforin. The antibodies also react with native Perforin from rhesus and cynomolgus macaques.

ELISpot/ELISA: The antibodies recognize different epitopes of Perforin; mAbs Pf-80/164 are suitable for capture and mAb Pf-344 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

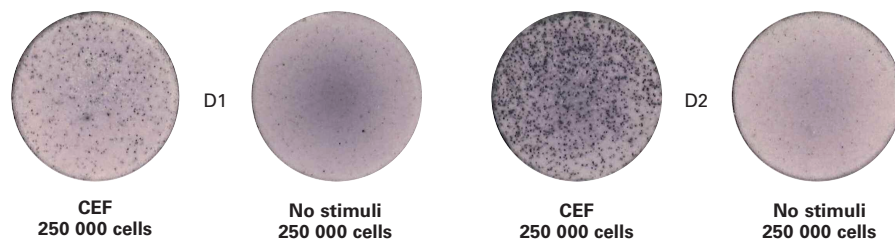
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3465-3-250	anti-h-Perforin mAbs Pf-80/164, purified	500 µg*
3465-3-1000	anti-h-Perforin mAbs Pf-80/164, purified	2 mg*
3465-6-250	anti-h-Perforin mAb Pf-344, biotinylated	250 µg
3465-6-1000	anti-h-Perforin mAb Pf-344, biotinylated	1 mg
3465-7	anti-h-Perforin mAb Pf-344, FITC	250 µg

* Optimal results have been obtained using Pf-80 and Pf-164 in combination, therefore twice the amount is supplied. For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of Perforin-producing cells in cell cultures.



Perforin production of human PBMC. Cells were incubated for 48 hours in the presence of CEF peptide pool and in medium alone (no stimuli). Shown are the tests for two different donors (D1 and D2).

Perforin ELISpot^{PLUS} with regular plates

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/-HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3465-2AW-Plus	h-Perforin ELISpot ^{PLUS} kit	ALP	4 white plates
3465-2HW-Plus	h-Perforin ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

Perforin ELISpot^{PLUS} kit with precoated plates

Contents: • precoated PVDF plates • biotinylated detection mAb • Streptavidin-ALP/-HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3465-4APT-4	h-Perforin ELISpot ^{PLUS} kit	ALP	4 transparent plates
3465-4APW-4	h-Perforin ELISpot ^{PLUS} kit	ALP	4 white plates
3465-4HPT-4	h-Perforin ELISpot ^{PLUS} kit	HRP	4 transparent plates
3465-4HPW-4	h-Perforin ELISpot ^{PLUS} kit	HRP	4 white plates

Perforin ELISpot kit

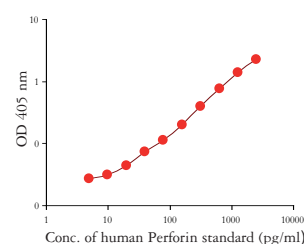
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/-HRP

Product code	Product description	SA-Enzyme	Quantity
3465-2A	h-Perforin ELISpot kit	ALP	for 4 plates*
3465-2H	h-Perforin ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ab/ml of the capture antibodies.

ELISA

For quantitative determination of human Perforin in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a Perforin standard derived from human YT cells. No international standard exists for calibration.



Representative titration of human Perforin standard using an ELISA kit from Mabtech.

Perforin ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • Perforin standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3465-1HP-2	h-Perforin ELISA ^{PRO} kit	2 plates
3465-1HP-10	h-Perforin ELISA ^{PRO} kit	10 plates

Perforin ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/-HRP • Perforin standard • The standard range is 11 - 1100 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3465-1A-6	h-Perforin ELISA kit	ALP	for 6 plates
3465-1A-20	h-Perforin ELISA kit	ALP	for 20 plates
3465-1H-6	h-Perforin ELISA kit	HRP	for 6 plates
3465-1H-20	h-Perforin ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Selected references using reagents from Mabtech

Human Perforin ELISpot and ELISA:

- Zuber B, *et al.* Detection of human perforin by ELISpot and ELISA: Ex vivo identification of virus-specific cells. *J. Immunol. Methods* 302: 13, 2005.
- Zuber B, *et al.* Detection of macaque perforin expression and release by flow cytometry, immunohistochemistry, ELISA and ELISpot. *J. Immunol. Methods* 312: 45, 2006.

- Raeiszadeh M, *et al.* The T cell response to persistent herpes virus infections in common variable immunodeficiency. *Clin. Exp. Immunol.* 146: 234, 2006.

- Jarefors S, *et al.* Reduced number of interleukin-12 secreting cells in patients with Lyme borreliosis previously exposed to *Anaplasma phagocytophilum*. *Clin. Exp. Immunol.* 143: 322, 2006.

Tumor necrosis factor- α

Monoclonal antibodies:

TNF α -I (mouse IgG1)

TNF α -II (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (TNF α -I, TNF α -II)

Specificity: Native and recombinant human TNF- α .

ELISpot/ELISA: The two antibodies recognize different epitopes of TNF- α ; mAb TNF α -I is suitable for capture and mAb TNF α -II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

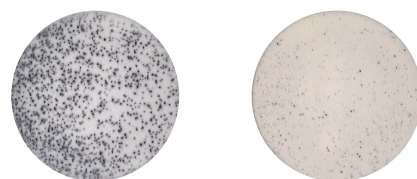
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3510-3-250	anti-h-TNF- α mAb TNF α -I, purified	250 μ g
3510-3-1000	anti-h-TNF- α mAb TNF α -I, purified	1 mg
3510-6-250	anti-h-TNF- α mAb TNF α -II, biotinylated	250 μ g
3510-6-1000	anti-h-TNF- α mAb TNF α -II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of TNF- α -producing cells in cell cultures.



LPS
250 000 cells

No stimuli
250 000 cells

TNF- α response to polyclonal activator. Human PBMC were incubated for 3 hours in the presence of LPS or cultured in medium alone (no stimuli).

TNF- α ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	Streptavidin-	Quantity
3510-2AW-Plus	h-TNF- α ELISpot ^{PLUS} kit	ALP	4 white plates
3510-2HW-Plus	h-TNF- α ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

TNF- α ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

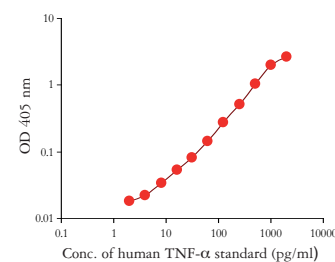
Product code	Product description	SA-Enzyme	Quantity
3510-2A	h-TNF- α ELISpot kit	ALP	for 4 plates*
3510-2H	h-TNF- α ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of human TNF- α in solution, e.g. cell culture supernatant.

Determinations in serum/plasma require special considerations (please see information about our ELISA diluent on pages 16 and 101). The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of human recombinant TNF- α standard using an ELISA kit from Mabtech.

TNF- α ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/-HRP • cytokine standard
• The standard range is 13- 1300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3510-1A-6	h-TNF- α ELISA kit	ALP	for 6 plates
3510-1A-20	h-TNF- α ELISA kit	ALP	for 20 plates
3510-1H-6	h-TNF- α ELISA kit	HRP	for 6 plates
3510-1H-20	h-TNF- α ELISA kit	HRP	for 20 plates

Selected reference using reagents from Mabtech

Human TNF- α ELISpot:

- Sjöwall J, *et al.* Innate immune responses in Lyme borreliosis: enhanced tumour necrosis factor- and interleukin-12 in asymptomatic individuals in response to live spirochetes. *Clin. Exp. Immunol.* 141: 89, 2005.

Interferon- γ

Monoclonal antibodies:

GZ-4 (mouse IgG1)

7-B6-1 (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (GZ-4)

Specificity: Native and recombinant IFN- γ from rhesus, cynomolgus and pigtail macaques. The kit also detects human IFN- γ . Inquire for reactivity with other monkey species. *Note: For the detection of chimpanzee IFN- γ , the reagents and kits for human IFN- γ can be used. See page 28.*

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb GZ-4 is suitable for capture and mAb 7-B6-1 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

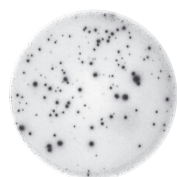
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3420M-3-250	anti-h-monkey-IFN- γ mAb GZ-4, purified	250 μ g
3420M-3-1000	anti-h-monkey-IFN- γ mAb GZ-4, purified	1 mg
3420-6-250	anti-h-IFN- γ mAb 7-B6-1, biotinylated	250 μ g
3420-6-1000	anti-h-IFN- γ mAb 7-B6-1, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

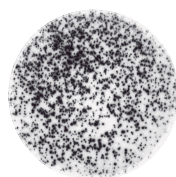
For enumeration of IFN- γ -producing cells in cell cultures.



Antigen
250 000 cells



No stimuli
250 000 cells



PHA
100 000 cells

IFN- γ response to antigen. PBMC from cynomolgus macaques were stimulated with antigen or cultured in medium alone (no stimuli) for 40 hours. PHA was used as a positive control.

IFN- γ ELISpot^{PRO} kit

Contents: • precoated PVDF plates • ALP-labeled detection mAb • BCIP/NBT substrate
• positive control (CD3-2)

Product code	Product description	Plate	Quantity
3420M-2APT-2	monkey-IFN- γ ELISpot ^{PRO} kit	transparent	2 plates
3420M-2APT-10	monkey-IFN- γ ELISpot ^{PRO} kit	transparent	10 plates
3420M-2APW-2	monkey-IFN- γ ELISpot ^{PRO} kit	white	2 plates
3420M-2APW-10	monkey-IFN- γ ELISpot ^{PRO} kit	white	10 plates

IFN- γ ELISpot^{PLUS} kit with regular plates

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420M-2AW-Plus	monkey-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3420M-2HW-Plus	monkey-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot^{PLUS} kit with precoated plates

Contents: • precoated PVDF plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420M-4APT-4	monkey-IFN- γ ELISpot ^{PLUS} kit	ALP	4 transparent plates
3420M-4APW-4	monkey-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3420M-4HPT-4	monkey-IFN- γ ELISpot ^{PLUS} kit	HRP	4 transparent plates
3420M-4HPW-4	monkey-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plate

IFN- γ ELISpot^{PLUS} kit with precoated strip-plates

Contents: • precoated PVDF strip-plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate • positive control (CD3-2)

Product code	Product description	SA-Enzyme	Quantity
3420M-4AST-4	monkey-IFN- γ ELISpot ^{PLUS} kit	ALP	4 transparent plates
3420M-4HST-4	monkey-IFN- γ ELISpot ^{PLUS} kit	HRP	4 transparent plates

IFN- γ ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3420M-2A	monkey-IFN- γ ELISpot kit	ALP	for 4 plates*
3420M-2H	monkey-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

Interferon- γ

Selected references using reagents from Mabtech

Monkey (rhesus, cynomolgus and pigtail macaque) IFN- γ ELISpot:

- Carruth LM, *et al.* SIV-specific T lymphocyte responses in PBMC and lymphoid tissues of SIV-infected pigtailed macaques during suppressive combination antiretroviral therapy. *J. Med. Primatol.* 34: 109, 2005.
- Singh DK, *et al.* A Noninfectious Simian/Human Immunodeficiency Virus DNA Vaccine That Protects Macaques against AIDS. *J. Virol.* 79: 3419, 2005.
- Evans DT, *et al.* Immunization of macaques with single-cycle simian immunodeficiency virus (SIV) stimulates diverse virus-specific immune responses and reduces viral loads after challenge with SIVmac239. *J. Virol.* 79: 7707, 2005.
- Mackay GA, *et al.* Protection against late-onset AIDS in macaques prophylactically immunized with a live simian HIV vaccine was dependent on persistence of the vaccine virus. *J. Immunol.* 173: 4100, 2004.
- Combredet C, *et al.* A molecularly cloned Schwarz strain of measles virus vaccine induces strong immune responses in macaques and transgenic mice. *J. Virol.* 77: 11546, 2003.
- Makitalo B, *et al.* ELISpot and ELISA analysis of spontaneous, mitogen-induced and antigen-specific cytokine production in cynomolgus and rhesus macaques. *J. Immunol. Methods* 270: 85, 2002.
- Ahmed RK, *et al.* Spontaneous production of RANTES and antigen specific IFN- γ production in macaques vaccinated with SHIV-4 correlates with protection against SIVsm challenge. *Clin. Exp. Immunol.* 129: 11, 2002.
- Kumar A, *et al.* ELISpot assay for detection of peptide specific interferon- γ secreting cells in rhesus macaques. *J. Immunol. Methods* 247: 49, 2001.
- Fogg MH, *et al.* The CD8+ T-cell response to an Epstein-Barr virus-related gammaherpesvirus infecting rhesus macaques provides evidence for immune evasion by the EBNA-1 homologue. *J. Virol.* 79:12681, 2005.

- Villinger F, *et al.* IL-15 is superior to IL-2 in the generation of long-lived antigen specific memory CD4 and CD8 T cells in rhesus macaques. *Vaccine* 22: 3510, 2004.
- Sharpe SA, *et al.* Macaques infected long-term with attenuated simian immunodeficiency virus (SIVmac) remain resistant to wild-type challenge, despite declining cytotoxic T lymphocyte responses to an immunodominant epitope. *J. Gen. Virol.* 85 :2591, 2004.
- Kaur A, *et al.* Ability of herpes simplex virus vectors to boost immune responses to DNA vectors and to protect against challenge by simian immunodeficiency virus. *Virology* 6, 2006. [Epub ahead of print]
- Mueller YM, *et al.* Interleukin-15 increases effector memory CD8+ T cells and NK Cells in simian immunodeficiency virus-infected macaques. *J. Virol.* 79: 4877, 2005.

Monkey (chimpanzee) using human IFN- γ ELISpot:

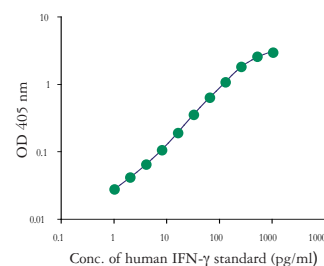
- Shata MT, *et al.* Optimization of recombinant vaccinia-based ELISPOT assay. *J. Immunol. Methods* 283: 281, 2003.
- Schneider J, *et al.* A prime-boost immunisation regimen using DNA followed by recombinant modified vaccinia virus Ankara induces strong cellular immune responses against the *Plasmodium falciparum* TRAP antigen in chimpanzees. *Vaccine* 19: 4595, 2001.
- Folgori A, *et al.* A T-cell HCV vaccine eliciting effective immunity against heterologous virus challenge in chimpanzees. *Nat. Med.* 12:190, 2006.

Monkey (sooty mangabey) using human IFN- γ ELISpot:

- Wang Z, *et al.* Th-1-type cytotoxic CD8+ T-lymphocyte responses to simian immunodeficiency virus (SIV) are a consistent feature of natural SIV infection in sooty mangabeys. *J. Virol.* 80: 2771, 2006.

ELISA

For quantitative determination of monkey IFN- γ in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant human IFN- γ standard calibrated against an international human standard (NIAID).



Representative titration of human recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3420M-1HP-2	monkey-IFN- γ ELISA ^{PRO} kit	2 plates
3420M-1HP-10	monkey-IFN- γ ELISA ^{PRO} kit	10 plates

IFN- γ ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 4 - 400 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3420M-1A-6	monkey-IFN- γ ELISA kit	ALP	for 6 plates
3420M-1A-20	monkey-IFN- γ ELISA kit	ALP	for 20 plates
3420M-1H-6	monkey-IFN- γ ELISA kit	HRP	for 6 plates
3420M-1H-20	monkey-IFN- γ ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

Interleukin-2

Monoclonal antibodies:

IL2M-I (rat IgG2a)

IL2-II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant IL-2 from rhesus macaques. Native IL-2 from cynomolgus macaques. The antibodies also react with native and recombinant human IL-2. Inquire for reactivity with other monkey species.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-2; mAb IL2M-I is suitable for capture and mAb IL2-II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3440M-3-250	anti-h-monkey-IL-2 mAb IL2M-I, purified	500 µg
3440M-3-1000	anti-h-monkey-IL-2 mAb IL2M-I, purified	2 mg
3440-6-250	anti-h-IL-2 mAb IL2-II, biotinylated	250 µg
3440-6-1000	anti-h-IL-2 mAb IL2-II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

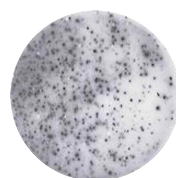
For enumeration of IL-2-producing cells in cell cultures.



Antigen
200 000 cells



No stimuli
200 000 cells



PHA
200 000 cells

Antigen-specific induction of monkey IL-2. PBMC from cynomolgus macaques were incubated with gag peptide or without stimuli for 22 hours. PHA was used as a positive control.

IL-2 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3440M-2AW-Plus	monkey-IL-2 ELISpot ^{PLUS} kit	ALP	4 white plates
3440M-2HW-Plus	monkey-IL-2 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-2 ELISpot kit

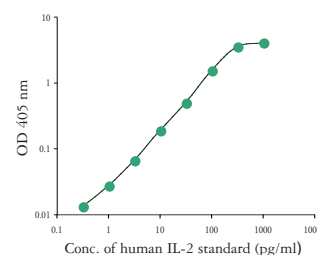
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3440M-2A	monkey-IL-2 ELISpot kit	ALP	for 4 plates*
3440M-2H	monkey-IL-2 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of monkey IL-2 in solution. The ELISA^{PRO} kit includes our new ELISA diluent which enables analysis of serum/plasma samples as well as cell culture supernatant. The kits include a recombinant human cytokine standard calibrated against an international human standard (NIBSC).



Representative titration of human recombinant IL-2 standard using an ELISA kit from Mabtech.

IL-2 ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard
• wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution
• adhesive plate covers

Product code	Product description	Quantity
3440M-1HP-2	monkey-IL-2 ELISA ^{PRO} kit	2 plates
3440M-1HP-10	monkey-IL-2 ELISA ^{PRO} kit	10 plates

IL-2 ELISA kit*

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 5 - 500 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3440M-1A-6	monkey-IL-2 ELISA kit	ALP	for 6 plates
3440M-1A-20	monkey-IL-2 ELISA kit	ALP	for 20 plates
3440M-1H-6	monkey-IL-2 ELISA kit	HRP	for 6 plates
3440M-1H-20	monkey-IL-2 ELISA kit	HRP	for 20 plates

*For determinations in serum and plasma Mabtech offers an ELISA diluent aimed to eliminate interference by heterophilic antibodies (please see pages 16 and 101).

The antibodies to the subsequently mentioned cytokines and Perforin of the human system can also be used for the detection of the native equivalent from rhesus and cynomolgus macaques in ELISpot and ELISA. For reactivities with other monkey species please inquire.

GM-CSF

See antibodies and kits for human GM-CSF on page 18.

Interleukin-4

See antibodies and kits for human Interleukin-4 on page 37.

Interleukin-5

See antibodies and kits for human Interleukin-5 on page 40.

Interleukin-6

See antibodies and kits for human Interleukin-6 on page 42.

Interleukin-12 (total)

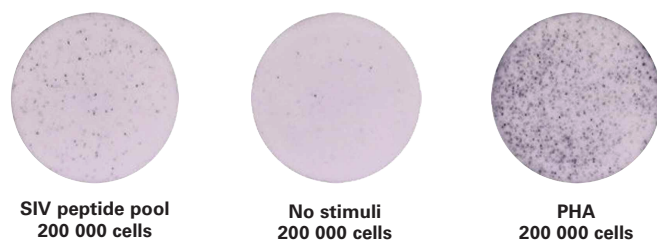
See antibodies and kits for human Interleukin-12 (total) on page 46.

Interleukin-13

See antibodies and kits for human Interleukin-13 on page 50.

Perforin

See antibodies and kits for human Perforin on page 54.



Antigen-specific induction of monkey Perforin. PBMC from cynomolgus macaques were stimulated for 22 hours with a SIV peptide pool or in medium alone (no stimuli). PHA was used as a positive control.

CD3 stimulation (positive control)

See product description for human positive control on page 32.

The monoclonal antibody CD3-2 to human CD3 can be used as a positive control for production of IFN- γ in ELISpot and ELISA experiments using cynomolgus macaque cells. **Not validated for other analytes or use in rhesus macaques.**

Selected references using reagents from Mabtech

- Makitalo B, *et al.* ELISpot and ELISA analysis of spontaneous, mitogen-induced and antigen-specific cytokine production in cynomolgus and rhesus macaques. *J. Immunol. Methods* 270: 85, 2002.

Monkey Perforin:

- Klingström J, *et al.* Elevated levels of serum perforin in chronic HIV-1 and acute SIV/SHIV infection. *AIDS* 20: 125, 2006.
- Gauduin MC, *et al.* Induction of a virus-specific effector-memory CD4⁺ T cell response by attenuated SIV infection. *J. Exp. Med.* 203: 2661, 2006.
- Quigley MF, *et al.* Perforin Expression in the Gastrointestinal Mucosa Is Limited to Acute Simian Immunodeficiency Virus Infection. *J. Virol.* 80: 3083, 2006.

Interferon- γ

Monoclonal antibodies:

AN18 (rat IgG1)
R4-6A2 (rat IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,
Flow Cytometry (AN18)

Specificity: Native and recombinant mouse IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb AN18 is suitable for capture and mAb R4-6A2 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3321-3-250	anti-mouse-IFN- γ mAb AN18, purified	250 μ g
3321-3-1000	anti-mouse-IFN- γ mAb AN18, purified	1 mg
3321-6-250	anti-mouse-IFN- γ mAb R4-6A2, biotinylated	250 μ g
3321-6-1000	anti-mouse-IFN- γ mAb R4-6A2, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



IFN- γ response to antigen. Mouse spleen cells were stimulated with antigen or cultured in medium alone (no stimuli) for 16 hours. PHA was used as a positive control.

IFN- γ ELISpot^{PLUS} kit with regular plates

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3321-2AW-Plus	mouse-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3321-2HW-Plus	mouse-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot^{PLUS} kit with precoated plates

Contents: • precoated PVDF plates • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3321-4APT-4	mouse-IFN- γ ELISpot ^{PLUS} kit	ALP	4 transparent plates
3321-4APW-4	mouse-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3321-4HPT-4	mouse-IFN- γ ELISpot ^{PLUS} kit	HRP	4 transparent plates
3321-4HPW-4	mouse-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

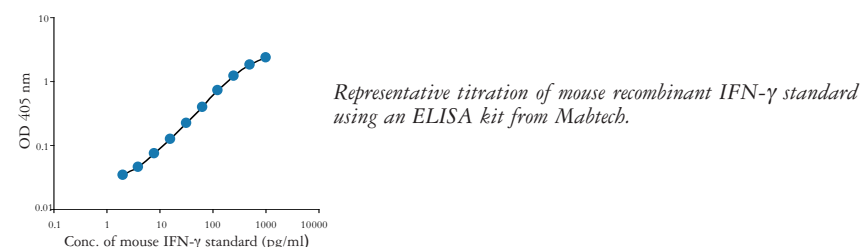
IFN- γ ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP			
Product code	Product description	SA-Enzyme	Quantity
3321-2A	mouse-IFN- γ ELISpot kit	ALP	for 4 plates*
3321-2H	mouse-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of mouse IFN- γ in solution. The kits include a recombinant cytokine standard calibrated against an international standard (NIAID).



IFN- γ ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers		
Product code	Product description	Quantity
3321-1HP-2	mouse-IFN- γ ELISA ^{PRO} kit	2 plates
3321-1HP-10	mouse-IFN- γ ELISA ^{PRO} kit	10 plates

IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 4 - 400 pg/ml			
Product code	Product description	SA-Enzyme	Quantity
3321-1A-6	mouse-IFN- γ ELISA kit	ALP	for 6 plates
3321-1A-20	mouse-IFN- γ ELISA kit	ALP	for 20 plates
3321-1H-6	mouse-IFN- γ ELISA kit	HRP	for 6 plates
3321-1H-20	mouse-IFN- γ ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

Mouse IFN- γ ELISpot:

- Gao W, *et al.* Protection of mice and poultry from lethal H5N1 avian influenza virus through adenovirus-based immunization. *J. Virol.* 80: 1959, 2006.
- Feng CG, *et al.* Maintenance of Pulmonary Th1 Effector Function in Chronic Tuberculosis Requires Persistent IL-12 Production. *J. Immunol.* 174: 4185, 2005.
- Turk MJ, *et al.* Concomitant tumor immunity to a poorly immunogenic melanoma is prevented by regulatory T cells. *J. Exp. Med.* 200: 771, 2004.

Mouse IFN- γ ELISA:

- Qazi KR, *et al.* Exposure to mycobacteria primes the immune system for evolutionarily diverse heat shock proteins. *Infect. Immun.* 73: 7687, 2005.
- Helmby H and Grenis RK. Interleukin 1 plays a major role in the development of Th2-mediated immunity. *Eur. J. Immunol.* 34: 3674, 2004.
- Djerbi M, *et al.* Expression of the long form of human FLIP by retroviral gene transfer of hemopoietic stem cells exacerbates experimental autoimmune encephalomyelitis. *J. Immunol.* 170: 2064, 2003.

Interleukin-2

Monoclonal antibodies:

1A12 (rat IgG2a)

5H4 (rat IgG2b)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant mouse IL-2.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-2; mAb 1A12 is suitable for capture and mAb 5H4 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3441-3-250	anti-mouse-IL-2 mAb 1A12, purified	250 µg
3441-3-1000	anti-mouse-IL-2 mAb 1A12, purified	1 mg
3441-6-250	anti-mouse-IL-2 mAb 5H4, biotinylated	250 µg
3441-6-1000	anti-mouse-IL-2 mAb 5H4, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

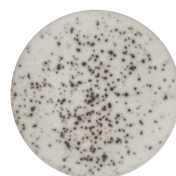
For enumeration of IL-2-producing cells in cell cultures.



Antigen
250 000 cells



No stimuli
250 000 cells



ConA
100 000 cells

IL-2 response to antigen. Mouse spleen cells were stimulated with antigen or cultured in medium alone (no stimuli) for 21 hours. Concanavalin A (ConA) was used as a positive control.

IL-2 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3441-2AW-Plus	mouse-IL-2 ELISpot ^{PLUS} kit	ALP	4 white plates
3441-2HW-Plus	mouse-IL-2 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-2 ELISpot kit

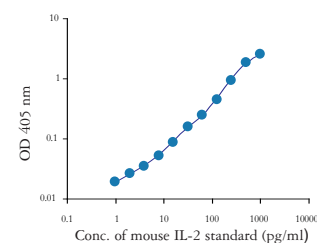
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3441-2A	mouse-IL-2 ELISpot kit	ALP	for 4 plates*
3441-2H	mouse-IL-2 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of mouse IL-2 in solution. The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of mouse recombinant IL-2 standard using an ELISA kit from Mabtech.

IL-2 ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard
• wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution
• adhesive plate covers

Product code	Product description	Quantity
3441-1HP-2	mouse-IL-2 ELISA ^{PRO} kit	2 plates
3441-1HP-10	mouse-IL-2 ELISA ^{PRO} kit	10 plates

IL-2 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 7 - 700 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3441-1A-6	mouse-IL-2 ELISA kit	ALP	for 6 plates
3441-1A-20	mouse-IL-2 ELISA kit	ALP	for 20 plates
3441-1H-6	mouse-IL-2 ELISA kit	HRP	for 6 plates
3441-1H-20	mouse-IL-2 ELISA kit	HRP	for 20 plates

Selected reference using reagents from Mabtech

Mouse IL-2 ELISpot:

– Forsell M, *et al.* Biochemical and immunogenic characterization of soluble human immunodeficiency virus type 1 envelope glycoprotein trimers expressed by semliki forest virus. *J. Virol.* 79: 10902, 2005.

Interleukin-4

Monoclonal antibodies:

11B11 (rat IgG1)

BVD6-24G2 (rat IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant mouse IL-4.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-4; mAb 11B11 is suitable for capture and mAb BVD6-24G2 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3311-3-250	anti-mouse-IL-4 mAb 11B11, purified	250 µg
3311-3-1000	anti-mouse-IL-4 mAb 11B11, purified	1 mg
3311-6-250	anti-mouse-IL-4 mAb BVD6-24G2, biotinylated	250 µg
3311-6-1000	anti-mouse-IL-4 mAb BVD6-24G2, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-4-producing cells in cell cultures.



PHA
50 000 cells



No stimuli
50 000 cells

IL-4 response to polyclonal activator. Mouse splenocytes were incubated for 48 hours in the presence of the mitogen PHA (phytohemagglutinin) and medium alone (no stimuli).

IL-4 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate			
Product code	Product description	SA-Enzyme	Quantity
3311-2AW-Plus	mouse-IL-4 ELISpot ^{PLUS} kit	ALP	4 white plates
3311-2HW-Plus	mouse-IL-4 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

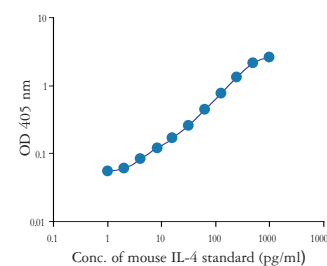
IL-4 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP			
Product code	Product description	SA-Enzyme	Quantity
3311-2A	mouse-IL-4 ELISpot kit	ALP	for 4 plates*
3311-2H	mouse-IL-4 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of mouse IL-4 in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard calibrated against an international standard (NIBSC).



Representative titration of mouse recombinant IL-4 standard using an ELISA kit from Mabtech.

IL-4 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 5 - 500 pg/ml			
Product code	Product description	Streptavidin-	Quantity
3311-1A-6	mouse-IL-4 ELISA kit	ALP	for 6 plates
3311-1A-20	mouse-IL-4 ELISA kit	ALP	for 20 plates
3311-1H-6	mouse-IL-4 ELISA kit	HRP	for 6 plates
3311-1H-20	mouse-IL-4 ELISA kit	HRP	for 20 plates

Selected references using reagents from Mabtech

Mouse IL-4 ELISpot:

- Klingstrom J, *et al.* Vaccination of C57/BL6 mice with Dobrava hantavirus nucleocapsid protein in Freund's adjuvant induced partial protection against challenge. *Vaccine* 22: 4029, 2004.
- Rodriguez A, *et al.* B- and T-cell responses to the mycobacterium surface antigen PstS-1 in the respiratory tract and adjacent tissues. Role of adjuvants and routes of immunization. *Vaccine* 21: 458, 2003.
- Helmby H and Grencis RK. IL-18 regulates intestinal mastocytosis and Th2 cytokine production independently of IFN-γ during *Trichinella spiralis* infection. *J. Immunol.* 169: 2553, 2002.
- Forsell M, *et al.* Biochemical and immunogenic characterization of soluble human immunodeficiency virus type 1 envelope glycoprotein trimers expressed by semliki forest virus. *J. Virol.* 79: 10902, 2005.

Mouse IL-4 ELISA:

- Helmby H and Grencis RK. Interleukin 1 plays a major role in the development of Th2-mediated immunity. *Eur. J. Immunol.* 34: 3674, 2004.
- Djerbi M, *et al.* Expression of the long form of human FLIP by retroviral gene transfer of hemopoietic stem cells exacerbates experimental autoimmune encephalomyelitis. *J. Immunol.* 170: 2064, 2003.

Interleukin-5

Monoclonal antibodies:

TRFK5 (rat IgG1)

TRFK4 (rat IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant mouse IL-5. The mAb TRFK5 also reacts with native and recombinant human IL-5 and native IL-5 from rhesus and cynomolgus macaques.

ELISpot/ELISA: The two antibodies recognize different epitopes of IL-5; mAb TRFK5 is suitable for capture and mAb TRFK4 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

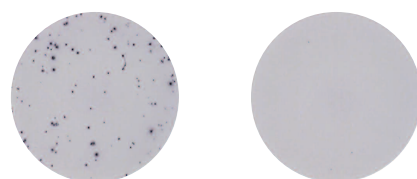
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3391-3-250	anti-mouse-IL-5 mAb TRFK5, purified	250 µg
3391-3-1000	anti-mouse-IL-5 mAb TRFK5, purified	1 mg
3391-6-250	anti-mouse-IL-5 mAb TRFK4, biotinylated	250 µg
3391-6-1000	anti-mouse-IL-5 mAb TRFK4, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-5-producing cells in cell cultures.



ConA
200 000 cells

No stimuli
200 000 cells

IL-5 response to polyclonal activator. Mouse splenocytes were incubated for 48 hours in the presence of the mitogen ConA (Concanavalin A) and medium alone (no stimuli).

IL-5 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3391-2AW-Plus	mouse-IL-5 ELISpot ^{PLUS} kit	ALP	4 white plates
3391-2HW-Plus	mouse-IL-5 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-5 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3391-2A	mouse-IL-5 ELISpot kit	ALP	for 4 plates*
3391-2H	mouse-IL-5 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Selected references using reagents from Mabtech

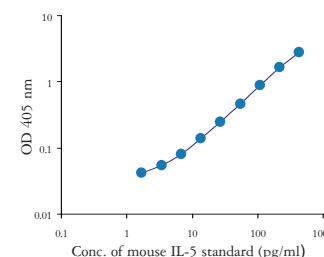
Mouse IL-5 ELISpot:

– Hogan MB, *et al.* Regulation of eosinophilopoiesis in a murine model of asthma. *J. Immunol.* 171: 2644, 2003.

– Rodriguez A, *et al.* B- and T-cell responses to the mycobacterium surface antigen PstS-1 in the respiratory tract and adjacent tissues. Role of adjuvants and routes of immunization. *Vaccine* 21: 458, 2003.

ELISA

For quantitative determination of mouse IL-5 in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of mouse recombinant IL-5 standard using an ELISA kit from Mabtech.

IL-5 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 6 - 600 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3391-1A-6	mouse-IL-5 ELISA kit	ALP	for 6 plates
3391-1A-20	mouse-IL-5 ELISA kit	ALP	for 20 plates
3391-1H-6	mouse-IL-5 ELISA kit	HRP	for 6 plates
3391-1H-20	mouse-IL-5 ELISA kit	HRP	for 20 plates

Interleukin-10

Monoclonal antibodies:

16E3 (rat IgG2b)
2A5 (rat IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant mouse IL-10. The two antibodies recognize different epitopes of IL-10.

ELISpot: mAb 16E3 is suitable for capture and mAb 2A5 for detection.

ELISA: mAb 2A5 is suitable for capture and mAb 16E3 for detection.

The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

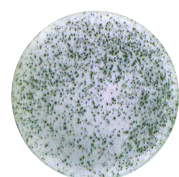
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3431-3-250	anti-mouse-IL-10 mAb 16E3, purified	250 µg
3431-3-1000	anti-mouse-IL-10 mAb 16E3, purified	1 mg
3431-4-250	anti-mouse-IL-10 mAb 16E3, biotinylated	250 µg
3431-4-1000	anti-mouse-IL-10 mAb 16E3, biotinylated	1 mg
3431-5-250	anti-mouse-IL-10 mAb 2A5, purified	250 µg
3431-5-1000	anti-mouse-IL-10 mAb 2A5, purified	1 mg
3431-6-250	anti-mouse-IL-10 mAb 2A5, biotinylated	250 µg
3431-6-1000	anti-mouse-IL-10 mAb 2A5, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-10-producing cells in cell cultures.



LPS
200 000 cells



No stimuli
200 000 cells

IL-10 response to polyclonal activator. Mouse splenocytes were incubated overnight in the presence of LPS and in medium alone (no stimuli).

IL-10 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb
• Streptavidin-ALP/ -HRP • BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3431-2AW-Plus	mouse-IL-10 ELISpot ^{PLUS} kit	ALP	4 white plates
3431-2HW-Plus	mouse-IL-10 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-10 ELISpot kit

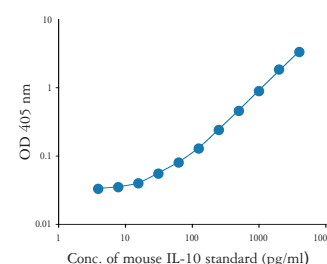
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3431-2A	mouse-IL-10 ELISpot kit	ALP	for 4 plates*
3431-2H	mouse-IL-10 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of mouse IL-10 in solution, e. g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of mouse recombinant IL-10 standard using an ELISA kit from Mabtech.

IL-10 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 20 - 2000 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3431-1A-6	mouse-IL-10 ELISA kit	ALP	for 6 plates
3431-1A-20	mouse-IL-10 ELISA kit	ALP	for 20 plates
3431-1H-6	mouse-IL-10 ELISA kit	HRP	for 6 plates
3431-1H-20	mouse-IL-10 ELISA kit	HRP	for 20 plates

Interleukin-12 (total)

Monoclonal antibodies:

C15.6 (rat IgG1)

C17.8 (rat IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant p40 subunit of mouse IL-12/IL-23. The two antibodies recognize different epitopes of p40. In combination, the antibodies detect p40 monomer, p40 homodimer, p70 heterodimer (p40+p35) and IL-23 (p40+p19)

ELISpot/ELISA: mAb C15.6 is suitable for capture and mAb C17.8 for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3451-3-250	anti-mouse-IL-12 mAb C15.6, purified	250 µg
3451-3-1000	anti-mouse-IL-12 mAb C15.6, purified	1 mg
3451-6-250	anti-mouse-IL-12 mAb C17.8, biotinylated	250 µg
3451-6-1000	anti-mouse-IL-12 mAb C17.8, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-12-producing cells in cell cultures.



IL-12 production by mouse spleen cells. Mouse splenocytes were incubated overnight in the presence of LPS and in medium alone (no stimuli).

IL-12 (total) ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • BCIP/NBT substrate

Product code	Product description	SA-Enzyme	Quantity
3451-2AW-Plus	mouse-IL-12 (total) ELISpot ^{PLUS} kit	ALP	4 white plates
3451-2HW-Plus	mouse-IL-12 (total) ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-12 (total) ELISpot kit

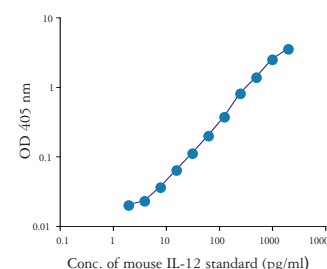
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3451-2A	mouse-IL-12 (total) ELISpot kit	ALP	for 4 plates*
3451-2H	mouse-IL-12 (total) ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of mouse IL-12 (total) in solution. The kits include a recombinant IL-12 standard (p70 heterodimer). No international standard exists for calibration.



Representative titration of mouse recombinant IL-12 standard using an ELISA kit from Mabtech.

IL-12 (total) ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP • cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent • TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3451-1HP-2	mouse-IL-12 (total) ELISA ^{PRO} kit	2 plates
3451-1HP-10	mouse-IL-12 (total) ELISA ^{PRO} kit	10 plates

IL-12 (total) ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard • The standard range is 6 - 600 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3451-1A-6	mouse-IL-12 (total) ELISA kit	ALP	for 6 plates
3451-1A-20	mouse-IL-12 (total) ELISA kit	ALP	for 20 plates
3451-1H-6	mouse-IL-12 (total) ELISA kit	HRP	for 6 plates
3451-1H-20	mouse-IL-12 (total) ELISA kit	HRP	for 20 plates

Interleukin-12 (p70)

Monoclonal antibodies:

C17.8 (rat IgG2a)

IL12-IV (rat IgG2a)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant mouse IL-12 p70 heterodimer (p40+p35). C17.8 binds p40 and IL12-IV binds p35. In combination, the two antibodies recognize p70 but not p40 monomer, p40 homodimer, or IL-23 (p40+p19).

ELISpot/ELISA: mAb C17.8 is suitable for capture and mAb IL12-IV for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

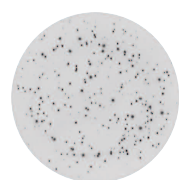
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3456-3-250	anti-mouse-IL-12 mAb C17.8, purified	250 µg
3456-3-1000	anti-mouse-IL-12 mAb C17.8, purified	1 mg
3456-6-250	anti-mouse-IL-12 mAb IL12-IV, biotinylated	250 µg
3456-6-1000	anti-mouse-IL-12 mAb IL12-IV, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IL-12 p70-producing cells in cell cultures.



LPS+mlIFN-γ
200 000 cells



No stimuli
200 000 cells

IL-12 p70 response to polyclonal activator. Mouse splenocytes were incubated overnight in the presence of LPS + recombinant mouse IFN-γ and in medium alone (no stimuli).

IL-12 (p70) ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT substrate

Product code	Product description	SA-Enzyme	Quantity
3456-2AW-Plus	mouse-IL-12 (p70) ELISpot ^{PLUS} kit	ALP	4 white plates
3456-2HW-Plus	mouse-IL-12 (p70) ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IL-12 (p70) ELISpot kit

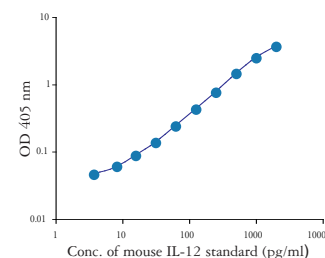
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3456-2A	mouse-IL-12 (p70) ELISpot kit	ALP	for 4 plates*
3456-2H	mouse-IL-12 (p70) ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

ELISA

For quantitative determination of mouse IL-12 p70 heterodimer in solution. The kits include a recombinant IL-12 standard (p70 heterodimer). No international standard exists for calibration.



Representative titration of mouse recombinant IL-12 standard using an ELISA kit from Mabtech.

IL-12 (p70) ELISA^{PRO} kit

Contents: • precoated strip-plates • biotinylated detection mAb • Streptavidin-HRP
• cytokine standard • wash buffer • ELISA diluent • Streptavidin-HRP diluent
• TMB substrate • stop solution • adhesive plate covers

Product code	Product description	Quantity
3456-1HP-2	mouse-IL-12 (p70) ELISA ^{PRO} kit	2 plates
3456-1HP-10	mouse-IL-12 (p70) ELISA ^{PRO} kit	10 plates

IL-12 (p70) ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 10 - 1000 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3456-1A-6	mouse-IL-12 (p70) ELISA kit	ALP	for 6 plates
3456-1A-20	mouse-IL-12 (p70) ELISA kit	ALP	for 20 plates
3456-1H-6	mouse-IL-12 (p70) ELISA kit	HRP	for 6 plates
3456-1H-20	mouse-IL-12 (p70) ELISA kit	HRP	for 20 plates

Interferon- γ

Monoclonal antibodies:

rIFN γ -I (mouse IgG1)

rIFN γ -II (mouse IgG1)

Applications:

ELISpot, ELISA

Specificity: Native and recombinant rat IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of rat IFN- γ ; mAb rIFN γ -I is suitable for capture and mAb rIFN γ -II for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

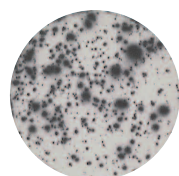
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3220-3-250	anti-rat-IFN- γ mAb rIFN γ -I, purified	250 μ g
3220-3-1000	anti-rat-IFN- γ mAb rIFN γ -I, purified	1 mg
3220-6-250	anti-rat-IFN- γ mAb rIFN γ -II, biotinylated	250 μ g
3220-6-1000	anti-rat-IFN- γ mAb rIFN γ -II, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



ConA
250 000 cells



No stimuli
250 000 cells

IFN- γ response to polyclonal activator. Rat spleen cells were stimulated with ConA or cultured in medium alone (no stimuli) for 21 hours.

IFN- γ ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3220-2AW-Plus	rat-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3220-2HW-Plus	rat-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot kit

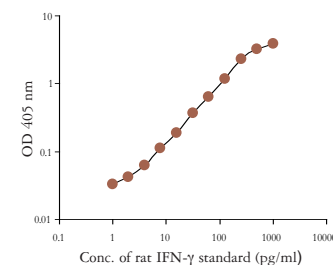
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3220-2A	rat-IFN- γ ELISpot kit	ALP	for 4 plates*
3220-2H	rat-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of rat IFN- γ in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of rat recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 3 - 300 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3220-1A-6	rat-IFN- γ ELISA kit	ALP	for 6 plates
3220-1A-20	rat-IFN- γ ELISA kit	ALP	for 20 plates
3220-1H-6	rat-IFN- γ ELISA kit	HRP	for 6 plates
3220-1H-20	rat-IFN- γ ELISA kit	HRP	for 20 plates

Interferon- γ

Monoclonal antibodies:

bIFN γ -I (mouse IgG1)
PAN (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,
Flow Cytometry (PAN)

Specificity: Native and recombinant bovine IFN- γ . The mAbs also react with native ovine IFN- γ and native and recombinant equine IFN- γ . Additionally, the mAb PAN also reacts with porcine IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb bIFN γ -I is suitable for capture and mAb PAN for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

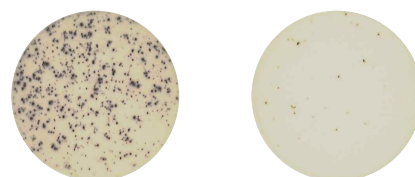
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3115-3-250	anti-bovine-IFN- γ mAb bIFN γ -I, purified	250 μ g
3115-3-1000	anti-bovine-IFN- γ mAb bIFN γ -I, purified	1 mg
3115-6-125	anti-bovine-IFN- γ mAb PAN, biotinylated	125 μ g
3115-6-500	anti-bovine-IFN- γ mAb PAN, biotinylated	500 μ g

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



IFN- γ response to polyclonal activator. Bovine PBMC were stimulated with ConA or cultured in medium alone (no stimuli) for 16 hours.

IFN- γ ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3115-2AW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3115-2HW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot kit

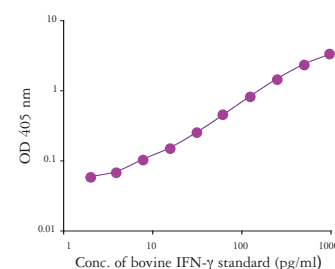
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3115-2A	bovine/ovine/equine-IFN- γ ELISpot kit	ALP	for 4 plates*
3115-2H	bovine/ovine/equine-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of bovine IFN- γ in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of bovine recombinant IFN- γ standard using an ELISA kit from Mabtech.

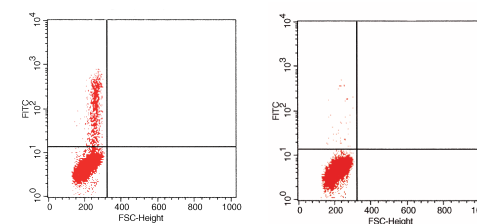
IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 5 - 500 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3115-1A-6	bovine-IFN- γ ELISA kit	ALP	for 6 plates
3115-1A-20	bovine-IFN- γ ELISA kit	ALP	for 20 plates
3115-1H-6	bovine-IFN- γ ELISA kit	HRP	for 6 plates
3115-1H-20	bovine-IFN- γ ELISA kit	HRP	for 20 plates

FLOW CYTOMETRY

For quantitative determination of bovine IFN- γ by flow cytometry. This antibody is also suitable for the detection of ovine, equine and porcine IFN- γ by flow cytometry.



Flow cytometry analysis of stimulated and unstimulated bovine PBMC using 5 μ l mAb PAN-FITC.

Product code	Product description	Quantity
3115-7	anti-bovine-IFN- γ mAb PAN, FITC	100 tests

For conjugates with fluorescent molecules other than presented here, please inquire.

Interferon- γ

Monoclonal antibodies:

bIFN γ -I (mouse IgG1)

PAN (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (PAN)

Specificity: Native ovine IFN- γ . The mAbs also react with native and recombinant bovine IFN- γ and native and recombinant equine IFN- γ . Additionally, the mAb PAN also reacts with porcine IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb bIFN γ -I is suitable for capture and mAb PAN for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

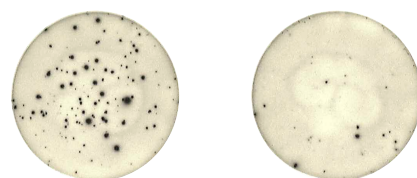
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3115-3-250	anti-bovine-IFN- γ mAb bIFN γ -I, purified	250 μ g
3115-3-1000	anti-bovine-IFN- γ mAb bIFN γ -I, purified	1 mg
3115-6-125	anti-bovine-IFN- γ mAb PAN, biotinylated	125 μ g
3115-6-500	anti-bovine-IFN- γ mAb PAN, biotinylated	500 μ g

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



ConA
25 000 cells

No stimuli
250 000 cells

IFN- γ response to polyclonal activator. Ovine PBMC were stimulated with ConA or cultured in medium alone (no stimuli) for 16 hours.

IFN- γ ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3115-2AW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3115-2HW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot kit

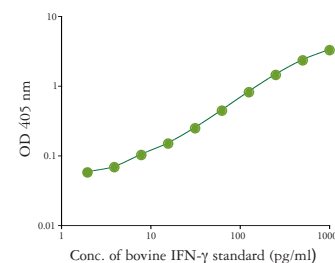
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3115-2A	bovine/ovine/equine-IFN- γ ELISpot kit	ALP	for 4 plates*
3115-2H	bovine/ovine/equine-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of ovine IFN- γ in solution, e.g. cell culture supernatant. Please note that there is currently no ovine cytokine standard available with the kit. Instead the kit is supplied with a recombinant bovine cytokine standard. No international standard exists for calibration.



Representative titration of bovine recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 5 - 500 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3116-1A-6	ovine-IFN- γ ELISA kit	ALP	for 6 plates
3116-1A-20	ovine-IFN- γ ELISA kit	ALP	for 20 plates
3116-1H-6	ovine-IFN- γ ELISA kit	HRP	for 6 plates
3116-1H-20	ovine-IFN- γ ELISA kit	HRP	for 20 plates

FLOW CYTOMETRY

For quantitative determination of ovine IFN- γ by flow cytometry. This antibody is also suitable for the detection of bovine, equine and porcine IFN- γ by flow cytometry.

Product code	Product description	Quantity
3115-7	anti-bovine-IFN- γ mAb PAN, FITC	100 tests

For conjugates with fluorescent molecules other than presented here, please inquire.

Interferon- γ

Monoclonal antibodies:

bIFN γ -I (mouse IgG1)

PAN (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (PAN)

Specificity: Native and recombinant equine IFN- γ . The mAbs also react with native and recombinant bovine IFN- γ and native ovine IFN- γ . Additionally, the mAb PAN also reacts with porcine IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; mAb bIFN γ -I is suitable for capture and mAb PAN for detection. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

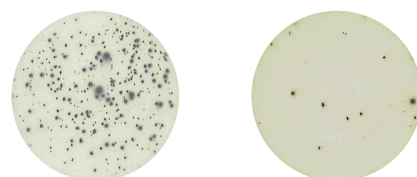
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3115-3-250	anti-bovine-IFN- γ mAb bIFN γ -I, purified	250 μ g
3115-3-1000	anti-bovine-IFN- γ mAb bIFN γ -I, purified	1 mg
3115-6-125	anti-bovine-IFN- γ mAb PAN, biotinylated	125 μ g
3115-6-500	anti-bovine-IFN- γ mAb PAN, biotinylated	500 μ g

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



ConA
25 000 cells

No stimuli
250 000 cells

IFN- γ response to polyclonal activator. Equine PBMC were stimulated with ConA or cultured in medium alone (no stimuli) for 16 hours.

IFN- γ ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3115-2AW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3115-2HW-Plus	bovine/ovine/equine-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot kit

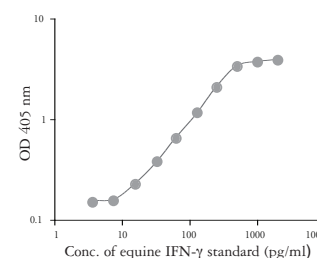
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3115-2A	bovine/ovine/equine-IFN- γ ELISpot kit	ALP	for 4 plates*
3115-2H	bovine/ovine/equine-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of equine IFN- γ in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of equine recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 5 - 500 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3117-1A-6	equine-IFN- γ ELISA kit	ALP	for 6 plates
3117-1A-20	equine-IFN- γ ELISA kit	ALP	for 20 plates
3117-1H-6	equine-IFN- γ ELISA kit	HRP	for 6 plates
3117-1H-20	equine-IFN- γ ELISA kit	HRP	for 20 plates

FLOW CYTOMETRY

For quantitative determination of equine IFN- γ by flow cytometry. This antibody is also suitable for the detection of bovine, ovine and porcine IFN- γ by flow cytometry.

Product code	Product description	Quantity
3115-7	anti-bovine-IFN- γ mAb PAN, FITC	100 tests

For conjugates with fluorescent molecules other than presented here, please inquire.

Interferon- γ

Monoclonal antibodies:

POR (mouse IgG1)

PAN (mouse IgG1)

Applications:

ELISpot, ELISA, Immunocytochemistry,

Flow Cytometry (PAN)

Specificity: Native and recombinant porcine IFN- γ . In addition the mAb PAN recognizes bovine, ovine and equine IFN- γ .

ELISpot/ELISA: The two antibodies recognize different epitopes of IFN- γ ; in ELISpot the mAb POR is suitable for capture and mAb PAN for detection, for ELISA the reverse system is recommended. The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

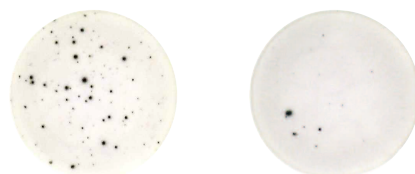
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3130-3-250	anti-porcine-IFN- γ mAb POR, purified	250 μ g
3130-3-1000	anti-porcine-IFN- γ mAb POR, purified	1 mg
3130-4-250	anti-porcine-IFN- γ mAb POR, biotinylated	250 μ g
3130-4-1000	anti-porcine-IFN- γ mAb POR, biotinylated	1 mg
3115-5-125	anti-bovine-IFN- γ mAb PAN, purified	125 μ g
3115-5-500	anti-bovine-IFN- γ mAb PAN, purified	500 μ g
3115-6-125	anti-bovine-IFN- γ mAb PAN, biotinylated	125 μ g
3115-6-500	anti-bovine-IFN- γ mAb PAN, biotinylated	500 μ g

For Streptavidin-enzyme reagents please see page 100.

ELISPOT

For enumeration of IFN- γ -producing cells in cell cultures.



ConA
50 000 cells

No stimuli
250 000 cells

IFN- γ response to polyclonal activator. Porcine PBMC were stimulated with ConA or cultured in medium alone (no stimuli) for 16 hours.

IFN- γ ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3130-2AW-Plus	porcine-IFN- γ ELISpot ^{PLUS} kit	ALP	4 white plates
3130-2HW-Plus	porcine-IFN- γ ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

IFN- γ ELISpot kit

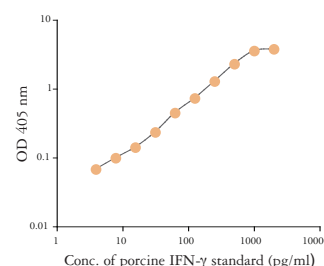
Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3130-2A	porcine-IFN- γ ELISpot kit	ALP	for 4 plates*
3130-2H	porcine-IFN- γ ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 μ g/ml of the capture antibody.

ELISA

For quantitative determination of porcine IFN- γ in solution, e.g. cell culture supernatant. The kits include a recombinant cytokine standard. No international standard exists for calibration.



Representative titration of porcine recombinant IFN- γ standard using an ELISA kit from Mabtech.

IFN- γ ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • cytokine standard
• The standard range is 6 - 600 pg/ml

Product code	Product description	SA-Enzyme	Quantity
3130-1A-6	porcine-IFN- γ ELISA kit	ALP	for 6 plates
3130-1A-20	porcine-IFN- γ ELISA kit	ALP	for 20 plates
3130-1H-6	porcine-IFN- γ ELISA kit	HRP	for 6 plates
3130-1H-20	porcine-IFN- γ ELISA kit	HRP	for 20 plates

FLOW CYTOMETRY

For quantitative determination of porcine IFN- γ by flow cytometry. This antibody is also suitable for the detection of bovine, ovine and equine IFN- γ by flow cytometry.

Product code	Product description	Quantity
3115-7	anti-bovine-IFN- γ mAb PAN, FITC	100 tests

For conjugates with fluorescent molecules other than presented here, please inquire.

Human CD3

Monoclonal antibody:

CD3-2 (mouse IgG2a)

Applications:

Immunocytochemistry, T cell activation

This mAb is useful for studies of CD3 expression in cells and tissue sections and for activation of T cells (see also page 32). The solution of non-conjugated purified antibody does not contain any preservatives. For conjugates with fluorescent molecules other than presented here, please inquire.

Product code	Product description	Quantity
3605-1-250	anti-CD3 mAb CD3-2, purified	250 µg
3605-1-1000	anti-CD3 mAb CD3-2, purified	1 mg
3605-2	anti-CD3 mAb CD3-2, FITC	250 µg
3605-3	anti-CD3 mAb CD3-2, rhodamine	250 µg

Human CD4

Monoclonal antibody:

CD4-1 (mouse IgG2a)

Applications:

Immunocytochemistry

This mAb is useful for studies of CD4 expression in cells and tissue sections. The solution of non-conjugated purified antibody does not contain any preservatives. For conjugates with fluorescent molecules other than presented here, please inquire.

Product code	Product description	Quantity
3606-1-250	anti-CD4 mAb CD4-1, purified	250 µg
3606-1-1000	anti-CD4 mAb CD4-1, purified	1 mg
3606-2	anti-CD4 mAb CD4-1, FITC	250 µg
3606-3	anti-CD4 mAb CD4-1, rhodamine	250 µg

Human CD8

Monoclonal antibody:

CD8-1 (mouse IgG1)

Applications:

Immunocytochemistry

This mAb is useful for studies of CD8 expression in cells and tissue sections. The solution of non-conjugated purified antibody does not contain any preservatives. For conjugates with fluorescent molecules other than presented here, please inquire.

Product code	Product description	Quantity
3607-1-250	anti-CD8 mAb CD8-1, purified	250 µg
3607-1-1000	anti-CD8 mAb CD8-1, purified	1 mg
3607-2	anti-CD8 mAb CD8-1, FITC	250 µg
3607-3	anti-CD8 mAb CD8-1, rhodamine	250 µg

Human CD40

Monoclonal antibodies:

S2C6 (mouse IgG1)

17:40 (mouse IgM)

Applications:

B-cell activation, Immunocytochemistry

Flow Cytometry (S2C6)

These mAbs are useful for studies of CD40 expression on cells and tissue sections and for studies of B-cell activation, proliferation and differentiation. The solution of non-conjugated purified antibody does not contain any preservatives.

Product code	Product description	Quantity
3601-1-250	anti-CD40 mAb S2C6, purified	250 µg
3601-1-1000	anti-CD40 mAb S2C6, purified	1 mg
3601-2-250	anti-CD40 mAb S2C6, biotinylated	250 µg
3601-2-1000	anti-CD40 mAb S2C6, biotinylated	1 mg
3601-3-250	anti-CD40 mAb S2C6, FITC	250 µg
3603-1-250	anti-CD40 mAb 17:40, purified	250 µg
3603-1-1000	anti-CD40 mAb 17:40, purified	1 mg

Selected references using reagents from Mabtech
Human CD40:

- Westerberg L, *et al.* Wiskott-Aldrich syndrome protein deficiency leads to reduced B-cell adhesion, migration, and homing, and a delayed humoral immune response. *Blood*. 105: 1144, 2005.
- Braesch-Andersen S, *et al.* Biochemical characteristics of the human B-cell and carcinoma antigen CD40. *Leucocyte typing IV*, 96-97, 1989.
- Björck P, *et al.* Antibodies to distinct epitopes on the CD40 molecule cooperate in stimulation and can be used for the detection of soluble CD40. *Immunology* 83: 430, 1994.

Human CD43

Monoclonal antibody:

B1B6 (mouse IgG1)

Applications:

T-cell activation, Immunocytochemistry

Flow Cytometry

This mAb is useful for studies of T-cell activation and CD43 expression on cells and tissue sections. The solution of non-conjugated purified antibody does not contain any preservatives.

Product code	Product description	Quantity
3602-1-250	anti-CD43 mAb B1B6, purified	250 µg
3602-1-1000	anti-CD43 mAb B1B6, purified	1 mg
3602-2-250	anti-CD43 mAb B1B6, biotinylated	250 µg
3602-2-1000	anti-CD43 mAb B1B6, biotinylated	1 mg
3602-3-250	anti-CD43 mAb B1B6, FITC	250 µg

Selected reference using reagents from Mabtech
Human CD43:

- Vargas-Cortes M, *et al.* Enhancement of human spontaneous cell-mediated cytotoxicity by a monoclonal antibody against the large sialoglycoprotein (CD 43) on peripheral blood lymphocytes. *Scand. J. Immunol.* 27: 661, 1988.

Human Apolipoprotein A1 (ApoA1)

Monoclonal antibodies:

HDL 110 (mouse IgG2b)

HDL 44 (mouse IgG1)

Applications:

ELISA, ELISpot,

Immunocytochemistry (HDL 44)

Specificity: Native and recombinant human ApoA1.

ELISpot/ELISA: The two antibodies recognize different epitopes of human ApolipoproteinA1; mAb HDL 110 is suitable for capture and mAb HDL 44 for detection.

The antibodies are available in kits for ELISA and ELISpot or as separate reagents.

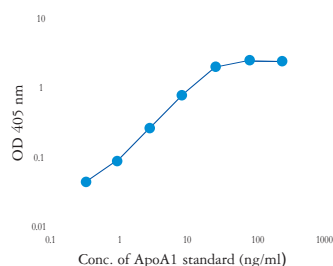
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3710-2-250	anti-ApoA1 mAb HDL 110, purified	250 µg
3710-2-1000	anti-ApoA1 mAb HDL 110, purified	1 mg
3710-3-250	anti-ApoA1 mAb HDL 44, biotinylated	250 µg
3710-3-1000	anti-ApoA1 mAb HDL 44, biotinylated	1 mg
3710-7	anti-ApoA1 mAb HDL 44, FITC	250 µg
3710-9	anti-ApoA1 mAb HDL 44, rhodamine	250 µg

For Streptavidin-enzyme reagents please see page 100.

ELISA

For quantitative determination of human ApoA1 in solution, e.g. cell culture supernatant. The kits include purified ApoA1 as a standard.



Representative titration of human ApoA1 standard using an ELISA kit from Mabtech.

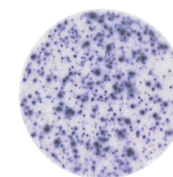
ApoA1 ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • ApoA1 standard
• The standard range is 1 - 100 ng/ml.

Product code	Product description	SA-Enzyme	Quantity
3710-1A-6	h-ApoA1 ELISA kit	ALP	for 6 plates
3710-1A-20	h-ApoA1 ELISA kit	ALP	for 20 plates
3710-1H-6	h-ApoA1 ELISA kit	HRP	for 6 plates
3710-1H-20	h-ApoA1 ELISA kit	HRP	for 20 plates

ELISPOT

For enumeration of ApoA1-producing cells in cell cultures.



ApoA1
30 000 cells

Spontaneous production of ApoA1. Cells from HEP G2 cell line were incubated for 20 hours.

ApoA1 ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA- Enzyme	Quantity
3710-2AW-Plus	h-ApoA1 ELISpot ^{PLUS} kit	ALP	4 white plates
3710-2HW-Plus	h-ApoA1 ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

ApoA1 ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3710-2A	h-ApoA1 ELISpot kit	ALP	for 4 plates*
3710-2H	h-ApoA1 ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Human Apolipoprotein B (ApoB)

Monoclonal antibodies:

LDL 20/17 (both mouse IgG2a)

LDL 11 (mouse IgG1)

Applications:

ELISA, ELISpot,

Immunocytochemistry (LDL 11)

Specificity: Native human ApoB.

ELISpot/ELISA: The antibodies recognize different epitopes of human ApoB; the antibody combination mAbs LDL 20/17 is suitable for capture and mAb LDL 11 for detection.

The antibodies are available in kits for ELISpot and ELISA or as separate reagents.

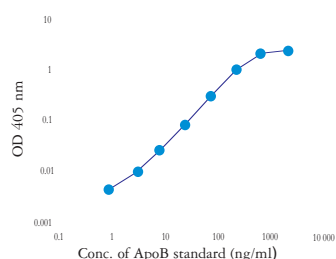
SEPARATE ANTIBODIES

Product code	Product description	Quantity
3715-2-250	anti-ApoB mAbs LDL 20/17, purified	250 µg
3715-2-1000	anti-ApoB mAbs LDL 20/17, purified	1 mg
3715-3-250	anti-ApoB mAb LDL 11, biotinylated	250 µg
3715-3-1000	anti-ApoB mAb LDL 11, biotinylated	1 mg
3715-7	anti-ApoB mAb LDL 11, FITC	250 µg
3715-9	anti-ApoB mAb LDL 11, rhodamine	250 µg

For Streptavidin-enzyme reagents please see page 100.

ELISA

For quantitative determination of human ApoB in solution, e.g. cell culture supernatant. The kits include purified ApoB as a standard.



Representative titration of human ApoB standard using an ELISA kit from Mabtech.

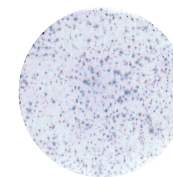
ApoB ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • ApoB standard
• The standard range is 8 - 800 ng/ml

Product code	Product description	SA-Enzyme	Quantity
3715-1A-6	h-ApoB ELISA kit	ALP	for 6 plates
3715-1A-20	h-ApoB ELISA kit	ALP	for 20 plates
3715-1H-6	h-ApoB ELISA kit	HRP	for 6 plates
3715-1H-20	h-ApoB ELISA kit	HRP	for 20 plates

ELISPOT

For enumeration of ApoB-producing cells in cell cultures.



ApoB
20 000 cells

Spontaneous production of ApoB. Cells from HEP G2 cell line were incubated for 48 hours.

ApoB ELISpot^{PLUS} kit

Contents: • PVDF plates • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP
• BCIP/NBT or TMB substrate

Product code	Product description	SA-Enzyme	Quantity
3715-2AW-Plus	h-ApoB ELISpot ^{PLUS} kit	ALP	4 white plates
3715-2HW-Plus	h-ApoB ELISpot ^{PLUS} kit	HRP	4 white plates

For additional plates and substrate please see page 101.

ApoB ELISpot kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP

Product code	Product description	SA-Enzyme	Quantity
3715-2A	h-ApoB ELISpot kit	ALP	for 4 plates*
3715-2H	h-ApoB ELISpot kit	HRP	for 4 plates*

*Sufficient for 4 plates when using the recommended coating concentration of 15 µg/ml of the capture antibody.

Human Galectin-3

Monoclonal antibody:

Gal-3 (rat IgG2a)

Applications:

Immunocytochemistry, Immunohistochemistry

Specificity: Native and recombinant human Galectin-3. The antibody is suitable for immunocytochemistry and immunohistochemistry.

Contents: • HRP-labeled detection mAb • Blocking reagent		
Product code	Product description	Quantity
3720-2	Galectin-3 staining kit (HRP)	250 µg
Separate antibodies		
3720-3-250	anti-Galectin-3 mAb Gal-3, purified	250 µg
3720-3-1000	anti-Galectin-3 mAb Gal-3, purified	1 mg
3720-4-250	anti-Galectin-3 mAb Gal-3, HRP	250 µg
3720-5	anti-Galectin-3 mAb Gal-3, FITC	250 µg

Human Insulin

Monoclonal antibodies:

E2-E3 (mouse IgG1) / 2D11-H5 (mouse IgG1)

Applications:

ELISA, Immunocytochemistry

Specificity: The two antibodies recognize different epitopes of human Insulin. In ELISA, mAb E2-E3 is suitable for capture and mAb 2D11-H5 for detection.

Product code	Product description	Quantity
3120-3-250	anti-h-Insulin mAb E2-E3, purified	250 µg
3120-3-1000	anti-h-Insulin mAb E2-E3, purified	1 mg
3120-6-250	anti-h-Insulin mAb 2D11-H5, biotinylated	250 µg
3120-6-1000	anti-h-Insulin mAb 2D11-H5, biotinylated	1 mg

For Streptavidin-enzyme reagents please see page 100.

Human Xanthine Oxidase

Monoclonal antibody:

X1-7 (mouse IgG2a)

Applications:

Immunocytochemistry, Immunohistochemistry

Specificity: Human Xanthine Oxidase. The antibody also reacts with bovine xanthine oxidase.

Product code	Product description	Quantity
3604-3-250	anti-Xanthine Oxidase mAb X1-7, purified	250 µg
3604-3-1000	anti-Xanthine Oxidase mAb X1-7, purified	1 mg

For Streptavidin-enzyme reagents please see page 100.

Selected references using reagents from Mabtech

Human Galectin-3:

- Papotti M, *et al.* Galectin-3 and HBME-1 expression in well-differentiated thyroid tumors with follicular architecture of uncertain malignant potential. *Mod. Pathol.* 18: 541, 2005.
- Bartolazzi A, *et al.* Application of an immunodiagnostic method for improving preoperative diagnosis of nodular thyroid lesions. *Lancet* 357: 1644, 2001.

Human Xanthine Oxidase:

- Hellsten Y, *et al.* Xanthine oxidase in human skeletal muscle following eccentric exercise: a role in inflammation. *J. Physiol.* 498: 239, 1997.
- Hellsten-Westling Y, *et al.* Immunohistochemical localization of xanthine oxidase in human cardiac and skeletal muscle. *Histochemistry* 100: 215, 1993.

Human Calreticulin

Monoclonal antibodies:

21.3 (mouse IgG2a)

32.b2 (mouse IgG2b)

39.3 (mouse IgG2b)

Applications:

Western blot (21.3)

Immunofluorescence (32.b2)

Flow Cytometry (39.3)

Specificity: Human Calreticulin.

The different monoclonal antibodies are suitable for the applications specified above.

Product code	Product description	Quantity
3730-1-250	anti-Calreticulin mAb 21.3, purified	250 µg
3730-1-1000	anti-Calreticulin mAb 21.3, purified	1 mg
3730-2-250	anti-Calreticulin mAb 32.b2, purified	250 µg
3730-2-1000	anti-Calreticulin mAb 32.b2, purified	1 mg
3730-3-250	anti-Calreticulin mAb 39.3, purified	250 µg
3730-3-1000	anti-Calreticulin mAb 39.3, purified	1 mg
3730-7	anti-Calreticulin mAb 39.3, FITC	100 tests

Human Amyloid-β

Monoclonal antibody:

bm-AbetaN (mouse IgG1)

Applications:

Western blot, Immunohistochemistry, ELISA

Specificity: human Amyloid-β

The antibody is useful for detection and analysis of Amyloid-β in various samples and for staining of amyloid plaques in the brain tissue from Alzheimer patients or in transgenic mice expressing human Amyloid-β.

Product code	Product description	Quantity
3740-5-250	anti-h-Amyloid-β mAb <i>bm</i> -AbetaN, purified	250 µg
3740-5-1000	anti-h-Amyloid-β mAb <i>bm</i> -AbetaN, purified	1 mg
3740-6-250	anti-h-Amyloid-β mAb <i>bm</i> -AbetaN, biotinylated	250 µg
3740-6-1000	anti-h-Amyloid-β mAb <i>bm</i> -AbetaN, biotinylated	1 mg

Total IgE

Monoclonal antibodies:

107 (mouse IgG1)
182 (mouse IgG2b)

Applications:

ELISA

Specificity: Native human IgE

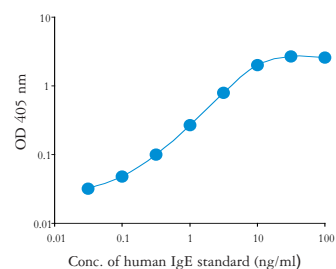
ELISA: The two antibodies recognize different epitopes of human IgE; mAb 107 is suitable for capture and mAb 182 for detection. The antibodies are available in kits for ELISA or as separate reagents.

SEPARATE ANTIBODIES

Product code	Product description	Quantity
3810-3-250	anti-h-IgE mAb 107, purified	250 µg
3810-3-1000	anti-h-IgE mAb 107, purified	1 mg
3810-6-250	anti-h-IgE mAb 182, biotinylated	250 µg
3810-6-100	anti-h-IgE mAb 182, biotinylated	1 mg

ELISA

For quantitative determination of total human IgE in serum/plasma samples. We strictly recommend the use of our ELISA diluent to eliminate heterophilic antibodies interference (please see pages 16 and 101). The kits include purified human IgE as a standard which is calibrated against an international standard (NIBSC).



Representative titration of human IgE standard using an ELISA kit from Mabtech.

Total human IgE ELISA kit

Contents: • capture mAb • biotinylated detection mAb • Streptavidin-ALP/ -HRP • human IgE standard
• The standard range is 0.1 - 10 ng/ml

Product code	Product description	SA-Enzyme	Quantity
3810-1A-6	h-IgE ELISA kit	ALP	for 6 plates
3810-1A-20	h-IgE ELISA kit	ALP	for 20 plates
3810-1H-6	h-IgE ELISA kit	HRP	for 6 plates
3810-1H-20	h-IgE ELISA kit	HRP	for 20 plates

Antigen-specific IgE detection reagent

Monoclonal antibodies:

107 (mouse IgG1)
182 (mouse IgG2b)
101 (mouse IgG2a)

Applications:

Antigen-specific IgE ELISA

Specificity: Native human IgE

For detection of antigen-specific IgE by e.g. indirect ELISA. The reagent consists of a combination of three different monoclonal antibodies specific for human IgE.

Product code	Product description	Quantity
3820-3-250	anti-h-IgE mAbs 107/182/101, purified	250 µg
3820-3-1000	anti-h-IgE mAbs 107/182/101, purified	1 mg
3820-6-250	anti-h-IgE mAbs 107/182/101, biotinylated	250 µg
3820-6-100	anti-h-IgE mAbs 107/182/101, biotinylated	1 mg

Streptavidin-Enzyme

Streptavidin conjugated to alkaline phosphatase (ALP) or horseradish peroxidase (HRP). The reagents have been developed for optimal signal to background ratio.

Applications: Suitable as secondary reagents in combination with biotinylated antibodies in ELISA, ELISpot, immunoblotting and immunocytochemistry.

Product code	Product description	Quantity
3310-8	Streptavidin-ALP	1 ml
3310-10	Streptavidin-ALP for ELISpot*	1 ml
3310-9	Streptavidin-HRP	1 ml

*optimized for ELISpot. This reagent is included in our ELISpot kits and ELISpot^{PLUS} kits.

Anti-Ig-ALP

Specificity: The ALP-conjugated polyclonal antibodies recognize human, mouse, rat or rabbit immunoglobulins as indicated below.

Each reagent has been purified by affinity chromatography using specific immunoglobulins. For reagents indicated as e.g. IgG specific, undesired cross-reactivities with other immunoglobulins have been removed by affinity adsorption.

Applications: Suitable as secondary reagents in ELISA, immunoblotting and immunocytochemistry.

Product code	Product description	Quantity
3310-1	Goat anti-human IgG-ALP	1 ml
3310-2	Goat anti-human IgM-ALP	1 ml
3310-3	Goat anti-human IgA-ALP	1 ml
3310-4	Goat anti-mouse IgG-ALP	1 ml
3310-5	Goat anti-mouse IgG+IgM-ALP	1 ml
3310-6	Goat anti-rat IgG-ALP	1 ml
3310-7	Goat anti-rabbit IgG-ALP	1 ml

Ready-to-use substrates

The high quality precipitating ready-to-use substrates which are included in our ELISpot^{PRO} and ELISpot^{PLUS} kits are also available as separate reagents. We recommend the use of BCIP/NBT substrate when using ALP (alkaline phosphatase) as enzyme and TMB when using HRP (horseradish peroxidase).

Application: ELISpot

Product code	Product description	Quantity
3650-10	BCIP/NBT substrate	125 ml
3651-10	TMB substrate	125 ml

Plate-Substrate-4-Pack

These packs contain PVDF membrane plates and substrate to supplement our basic ELISpot kits or separate antibody reagents and can only be ordered in combination with those.

Contents: • PVDF membrane plates • BCIP/NBT or TMB substrate sufficient for 4 plates		
Product code	Product description	Quantity
3653-MWB-4	4 white MSIP plates + BCIP/NBT substrate	4 plates, substrate
3653-MTB-4	4 transp. MSIP plates + BCIP/NBT substrate	4 plates, substrate
3653-EWB-4	4 white ELIIP plates + BCIP/NBT substrate	4 plates, substrate
3653-MWT-4	4 white MSIP plates + TMB substrate	4 plates, substrate
3653-MTT-4	4 transp. MSIP plates + TMB substrate	4 plates, substrate
3653-EWT-4	4 white ELIIP plates + TMB substrate	4 plates, substrate

Please note: These products can only be purchased together with antibody reagents from Mabtech.

ELISA diluent

Mabtech provides a ready-to-use reagent particularly recommended for the dilution of serum/plasma samples in ELISA. This diluent prevents false positive read-outs which may be caused by interference of heterophilic antibodies found in plasma and serum.

ELISA diluent

Contents: • diluent aimed to eliminate heterophilic antibodies interference present in serum and plasma		
Product code	Product description	Quantity
3652-D2	Ready-to-use ELISA diluent	2 x 120 ml

Ordering information

You can fax, phone, e-mail or send an order via regular mail directly to any of our offices using the contact information following.
For convenience, please use fax template on the following page.

You can also place an order via our web site:
www.mabtech.com

When ordering, please note that the following information is required:

- Full delivery address with contact name and telephone number
- Invoice address (if different from above)
- Fax number or e-mail address if a confirmation is required
- VAT number (if ordering within the European Union or from Canada)

Terms of delivery

Shipment is made by courier or express mail and is normally processed the same day as the order is received (unless otherwise specified).

Shipping charges

Shipping and handling costs are prepaid and added to the invoice.

Pricing and Payment

Prices are subject to change without notice.
Payment terms are net 30 days from invoice date.

Note

The products in this catalogue are sold for research use only.

Contact information

We can be contacted at any of the following offices:

SWEDEN (Head Office)
Mabtech AB
Box 1233
SE-131 28 Nacka Strand
Sweden
Tel: +46 8 716 27 00
Fax: +46 8 716 27 01
E-mail: mabtech@mabtech.com

USA
Mabtech, Inc.
MEB, Suite 220
3814 West Street
Cincinnati, OH 45227
USA
Tel: +1 513 871 4500
Fax: +1 513 871 7353
Toll Free: +1 866 ELI-SPOT (354-7768)
E-mail: mabtech.usa@mabtech.com

AUSTRALIA
Mabtech Australia Pty Ltd
18/7 Mandolong Road
Mosman, NSW 2088
Australia
Tel: +61 2 9960 5453
Fax: +61 2 9960 5453
E-mail: mabtech.au@mabtech.com
ABN 96 091 567 958

GERMANY
Mabtech AB, Büro Deutschland
Frickestr. 50
20251 Hamburg
Germany
Tel: +49 40 4135 7935
Fax: +49 40 4135 7945
E-mail: mabtech.de@mabtech.com

FRANCE
Mabtech AB, Bureau de liaison France
BP 255, 1300 route des Crêtes
06905 Sophia Antipolis
France
Tel: +33 (0)4 92 38 80 70
Fax: +33 (0)4 92 38 80 71
E-mail: mabtech.fr@mabtech.com

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3.			
4.			
5.			
6.			

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Notes

This image shows a full page of blank, white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page, providing a guide for writing. There are no margins, text, or other markings on the paper.