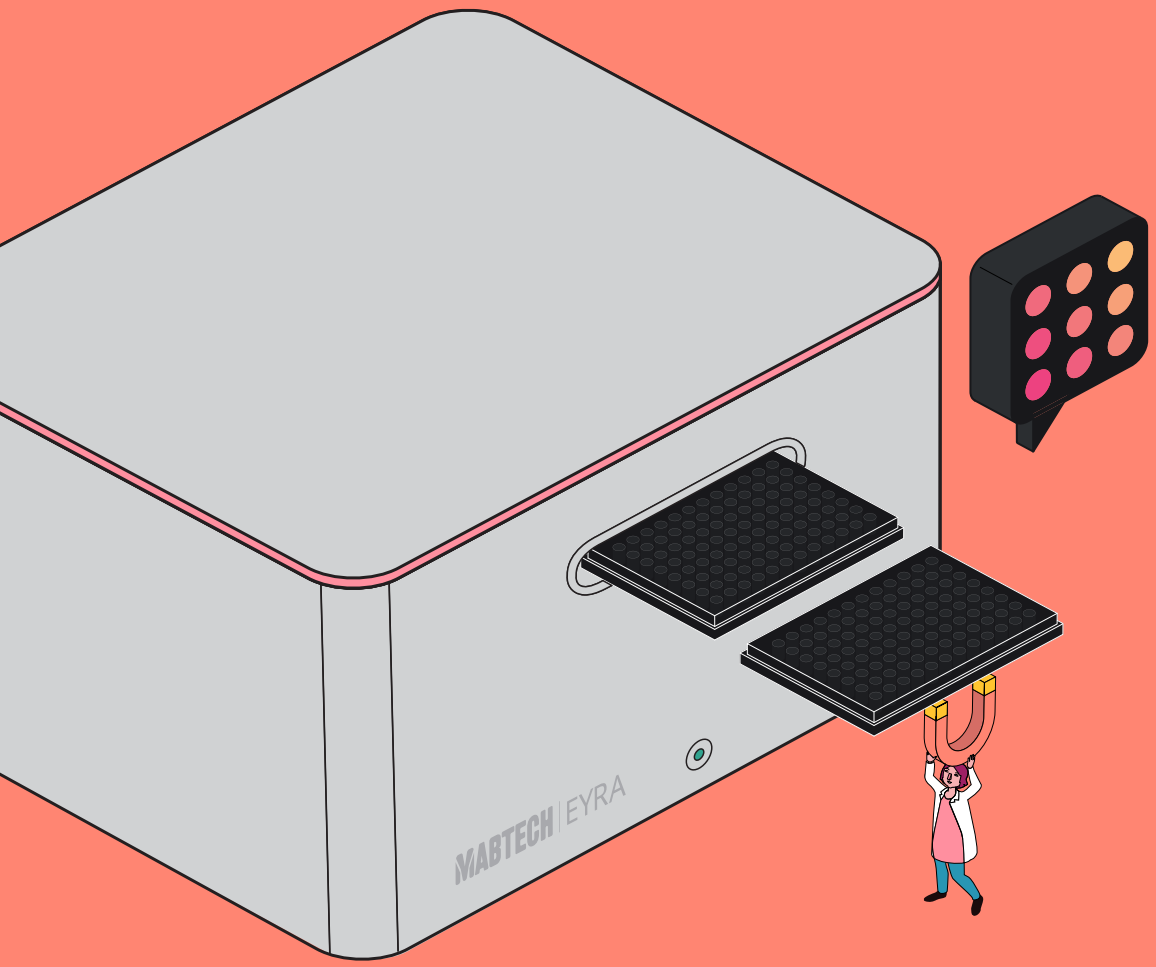
Multiplex

Made effortless with EYRA and EYRAplex



MABTECH

Your trusted source for immunoassays

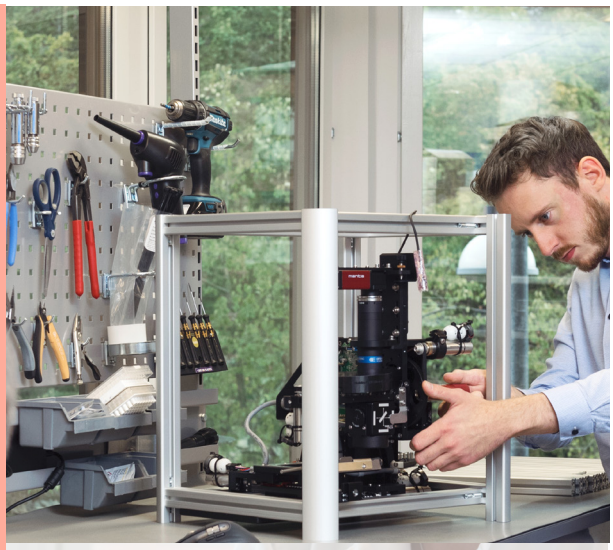
At Mabtech, we're not just advancing science, we're transforming it. With decades of experience in monoclonal antibody (mAb) pair and immunoassay development, we've built a reputation for creating assays and instruments that make complex immune monitoring easy and precise. Whether you're working on cutting-edge clinical trials or breakthrough research, you can always rely on our commitment to quality and accuracy.

Since the late '80s, our mAb pairs have become some of the most cited and trusted tools on the market, empowering researchers to answer their specific questions with confidence.

In 2018, we launched our first instrument, Mabtech IRIS, an ELISpot and FluoroSpot reader that revolutionized spot assay analysis.

This hard work has led us to our next logical step: multiplex analysis. We heard your call for more reliable assays and easier-to-use instrumentation, and Mabtech EYRA is the answer.

Designed to help you achieve results faster and with greater confidence, EYRA ensures your findings are ready for publication or drug development.



"From our antibodies to our instruments, every product is meticulously designed to ensure you can focus on what really matters – your research."

1986 Founded in Stockholm, developing antibodies as a service

1990 First ELISA and ELISpot kits

2008 First FluoroSpot kit

2018 FluoroSpot reader IRIS

2020 ELISpot reader ASTOR

2023 Upgraded IRIS 2 and ASTOR

2025 Multiplex reader EYRA, and EYRAplex kits

EYRAplex: simply trustworthy kits

Combining our trusted monoclonal antibody pairs with magnetic beads, EYRAplex assays are designed to deliver reliable results every time. Perfect for measuring **>30 analytes** in a single sample, saving you time, resources, and precious samples.

The same, highly specific, mAb pairs trusted in our ELISpot, FluoroSpot, and ELISA assays are now available in EYRAplex assays. With our recombinant mAbs and novel assay buffer, heterophilic antibody interference is a thing of the past.

EYRAplex kits can be used with either the Mabtech EYRA instrument or most flow cytometers with red and green lasers.

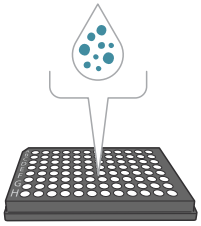
How it works

Capture antibodies are immobilized on magnetic beads with a dye ratio specific to each analyte. After sample incubation, captured analytes are detected with biotinylated recombinant detection antibodies. The final addition of a streptavidin-PE conjugate allows for measuring the amount of captured analyte. MFI values from data acquisition are converted into analyte concentrations based on the included standards.

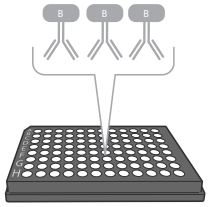
EYRAplex assays have been tested and validated for use with plasma (heparin or EDTA), serum, and cell supernatants.

Step-by-step

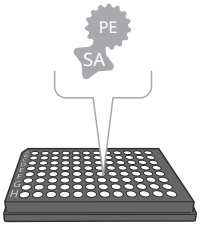
1. Capture bead mix
Capture bead mix is added.



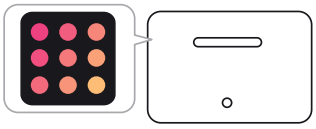
2. Protein capture
Samples and standards are incubated allowing the soluble proteins to be captured by the specific antibodies.



3. Detection mAb mix
Biotinylated detection antibody mix is added to bind the captured proteins.



4. Streptavidin-PE
Addition of streptavidin-PE allows for analyte quantification.



5. Analysis and calculation
Bead IDs and corresponding PE fluorescent signals are acquired in EYRA and protein concentrations are quantified.

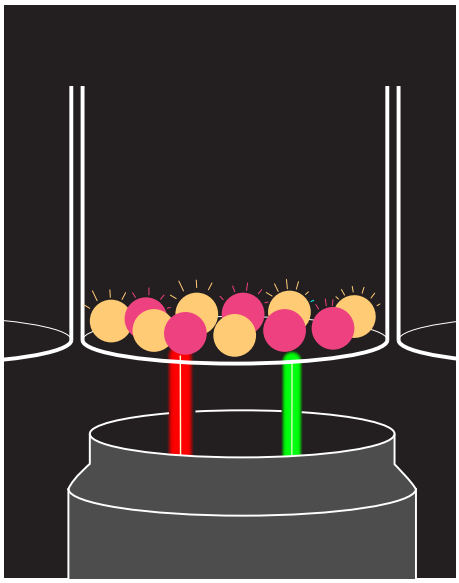
EYRA: a better multiplex instrument

Planar bead-based analysis

Building on our expertise in spot analysis, we pushed boundaries and ventured into image-based bead analysis.

Image-based?! Yes, EYRA utilizes confocal microscopy to image and analyze the bead complexes at the bottom of each well (and they stay there!) during data acquisition. The benefits of an image-based readout were immediatly clear: **no risk for clogging, reduces waste, and simplifies going from sample to data.**

Since EYRA does not utilize fluidics, there's also no need for daily, weekly or monthly maintenance, nor any extensive start-up or shut-down procedures; simply insert your plate, press read, and export your data. **EYRA makes multiplex analysis almost too easy.**



Multiplex minus the mess

No warm-up time and setup

And minimal onboarding.

Automated "walk-away" acquisition

High throughput workflows – come back after 20 minutes for instant results.

No-contact readout

Samples stay in the wells and never come in contact with instrument (unlike in traditional bead-based assay analyzers).

Low maintenance and downtime

No need for priming or cleaning.

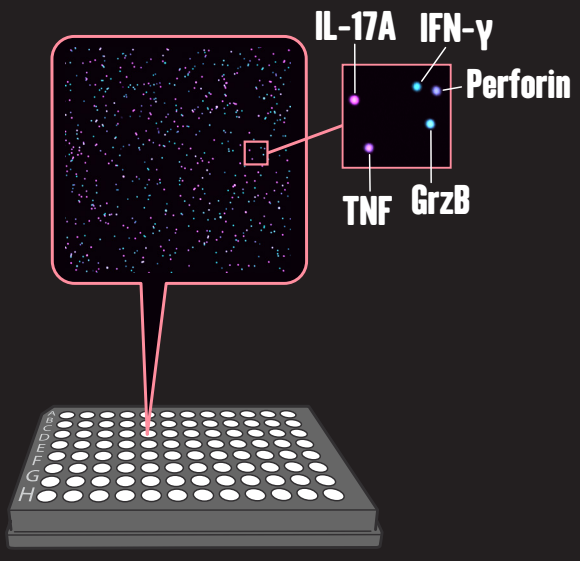
Intuitive software

Built on our proven software for Mabtech IRIS and ASTOR.

EYRA: powered by Opal™ software

The intuitive Opal™ software streamlines data acquisition, making setup effortless. Easily configure the plate layout with standards and samples directly in the software or import a predefined template. With EYRAplex panels preloaded, there's no need for manual analyte labeling or gating setup – simply select your assay and press read. A full 96-well plate is processed in around 15 minutes and multiple plates can be exported together as a single bulk Excel file. This file includes standard curves, MFI values, and calculated concentrations for seamless data tracking and analysis.

Building on the success of our patented RAWspot™ algorithm – recognized as the gold standard in spot detection in ELISpot and FluoroSpot readers – we developed **RAWsphere**. With RAWsphere we can precisely identify the bead center, ensuring accurate detection of the correct bead ID and its associated PE-signal.



Zoomed-in scan of a well and beads with distinct dye signatures assigned to >30 bead IDs.

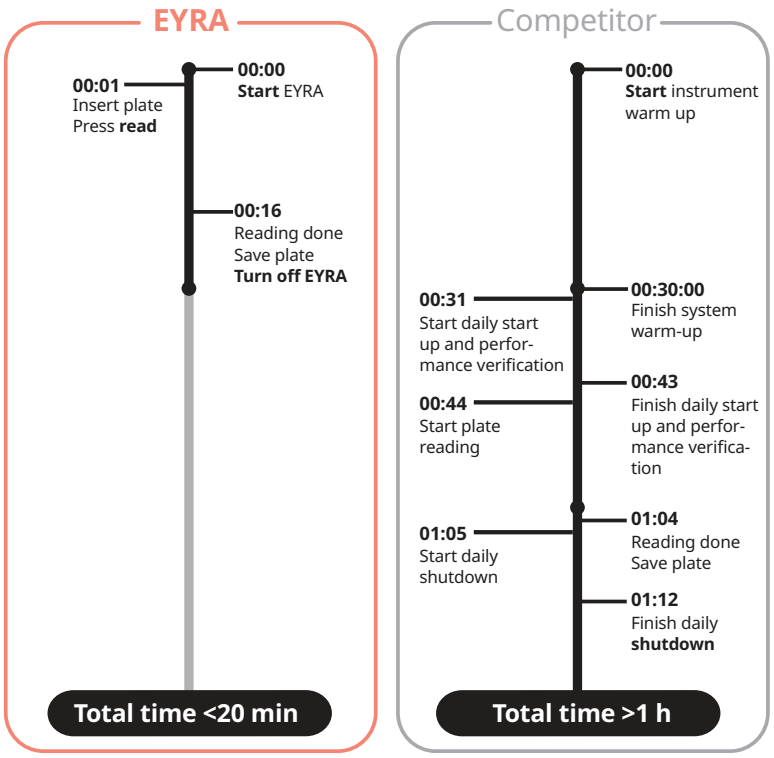
At the core of the EYRAplex assay are the fluorescent signals from uniquely dyed beads and their corresponding PE intensities. Opal processes thousands of these bead events in seconds, matching the PE MFI values to each analyte based on bead ID. Standard wells define the standard curve for each analyte, enabling automatic calculation of concentrations in your unknowns. Fast, reliable, and hands-off – Opal handles the data so you can focus on the insights that move your research forward.

Say goodbye to flow-based hassles

Unlike traditional flow-based systems, EYRA is always ready when you are – **no warm-up required**. Get results before other systems are even ready to begin reading.

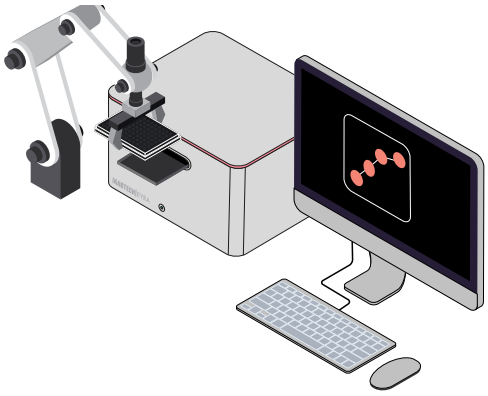
Simply insert your plate and get **results in just 15 minutes.** No more daily warm-up procedures, fluid management, waste disposal, probe height calibration or weekly calibration. On top of all this, flow-based systems come with extra costs for products such as sheath fluid and calibration kits, while EYRA keeps it simple and cost-efficient.

EYRA means efficiency, simplicity, and savings.



Ready for automation

EYRA and Opal are designed with automation in mind to make the analysis of larger projects a breeze. We recognize that each automation solution is unique and we are here to help you every step of the way – and EYRA is ready for the task.



A fluidics-free experience!

Since EYRA cannot clog, there is no need to babysit the instrument; walk away during data acquisition and have a worry-free coffee break!

Broad range of inflammatory panels

EYRAplex

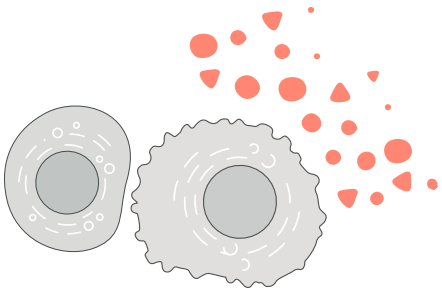
Each EYRAplex kit comes with everything you need to get started:

- Capture bead mix
- Detection mAb mix, biotin
- Streptavidin-PE
- Standard mixes
- Assay diluents and wash buffers
- EYRAplex plate with lid and adhesive plate covers

EYRAplex kits are also compatible with most flow cytometers for analysis. Reach out for more information!

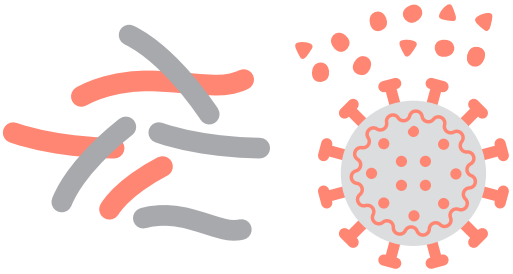
Designed to deliver answers

Each EYRAplex panel has been meticulously designed based on in-depth analysis of the most relevant and widely studied analytes in immune response and inflammation. Whether you're advancing vaccines, developing therapeutics, or driving immunology research forward, these panels are built to deliver meaningful, actionable data.



Human panels

- Th1/Th2: 7-, 10-, and 18-plex
- Th17/Th22: 13-plex
- Proinflammatory: 8- and 12-plex
- Treg: 12-plex
- *In vitro* cytokine release: 8- and 15-plex
- Chemokine: 6-plex
- Cytokine: 29-plex
- Cytokine storm: 20-plex
- Viral: 13- and 18-plex

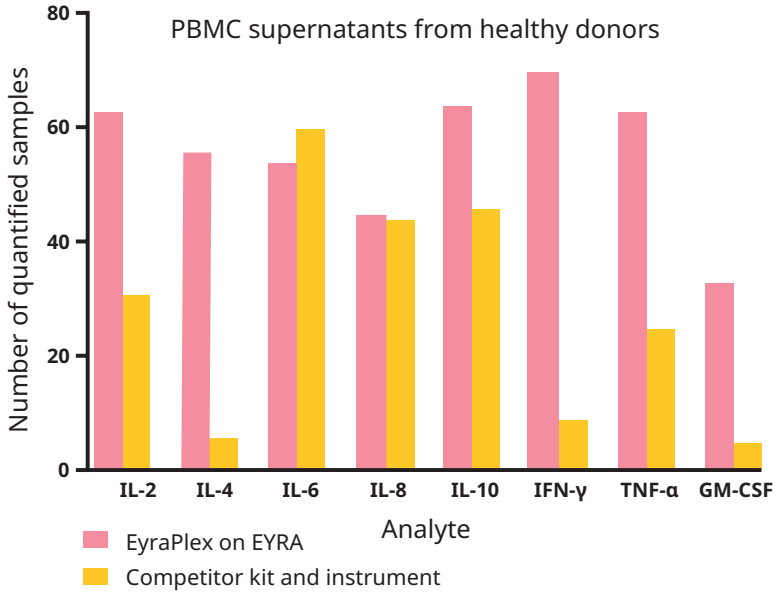


These panels are just the beginning. We're actively developing new ones, including additional species to support even more areas of research. Interested in collaborating or need something specific? We'd love to hear from you.

No guesswork, just great data

How does EYRAplex measure up?

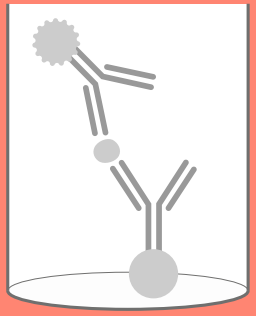
At Mabtech, we design tools that simply work and give you data you can truly rely on. When benchmarking EYRAplex kits against other bead-based assay providers, our mAb pairs showed comparable or even superior sensitivity. What does this mean for you? Clearer, more accurate insights into the immune mechanisms at play in your samples driving your therapies, vaccines, and research forward.



Goodbye heterophilic interference

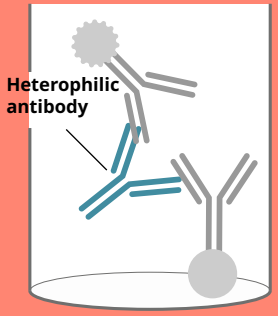
Heterophilic antibodies, including HAMA, commonly interfere with assays, leading to false positives by cross-linking capture and detection antibodies or false negatives by blocking one of them. This issue increases in autoimmune diseases and infections, i.e., clinical samples. EYRAplex assays address this by using recombinant detection mAbs and a specialized assay buffer to block interference.

Bead-based assay



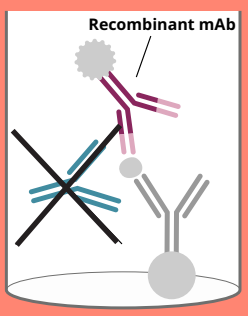
How it should be.

Cross-linking



Oh no! Heterophilic antibody cross-linking leads to **false** positive.

EYRAplex kit



Phew! Heterophiles are blocked giving accurate results!

Specifications

EYRA

Applications	
Protein analysis	√
Compatible assays	EYRAplex
Hardware	
Detection system	Confocal microscope
Reporter lasers	532 nm and 638 nm
Multiplex capacity	>30 analytes
Microtiter plate	96-well
Dimensions (H x W x D)	386 x 602 x 516 mm
Desktop PC	Included
Robotic automation ready	√
Software	
Mabtech Opal™	√
RAWsphere™ technology	√
Reading time	~15 minutes
Service	
Warranty: 1 year, extensions are part of a service plan available for separate purchase	√
Qualification: IQ, OQ, PQ	√
Regulations	
Compliance with CE, RoHS, CFR21 part 11, EU Annex 11	√

Regulatory compliance

Our products are designed to comply with the following guidelines in § 11.10 Controls for closed system of CFR21:

- Validation – Part 11.10 (a)
- Copies – Part 11.10 (b)
- Record protection – Part 11.10 (c)
- Access limitation, operational system checks and authority checks – Part 11.10 (d, f, g).
- Audit trails – Part 11.10 (e)
- Device checks (h)

Quality, through and through

Our assays and instruments are produced in accordance with ISO 9001 and ISO 13485 standards, ensuring that quality is not just a buzzword but a commitment. With strict quality control and validation at every step, you can rely on Mabtech to provide consistent, high-quality reagents, and assays for your research.

Take the next step with EYRA

Interested to learn more? Follow the QR-code for even more information about EYRA and EYRAplex and to get in contact with us.

EYRA at a glance

Mabtech EYRA and EYRAplex, setting a new standard for bead-based assays.

	EYRAplex	Competitor
Magnetic bead-based assay	✓	✓
Mabtech's trusted mAb pairs	✓	✗
Goodbye heterophilic interference	✓	✗
Compatible with EYRA and most flow cytometers	✓	✗

	EYRA	Competitor
Detect >30 analytes	✓	✓
Start, read and shutdown in 20 minutes	✓	✗
Fluidics-free: no sheath fluid, no waste	✓	✗
Export multiple plates into one Excel file	✓	✗
Worry-free coffee during readout	✓	✗

MABTECH

Happy multiplexing! ☺

About Mabtech

Mabtech is a Swedish biotech company founded in 1986. Our mission is to aid scientists to reach new frontiers through optimal immunoassays and instruments.

www.mabtech.com

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