



Revealing the truth  
of human disease.  
Protein by protein.

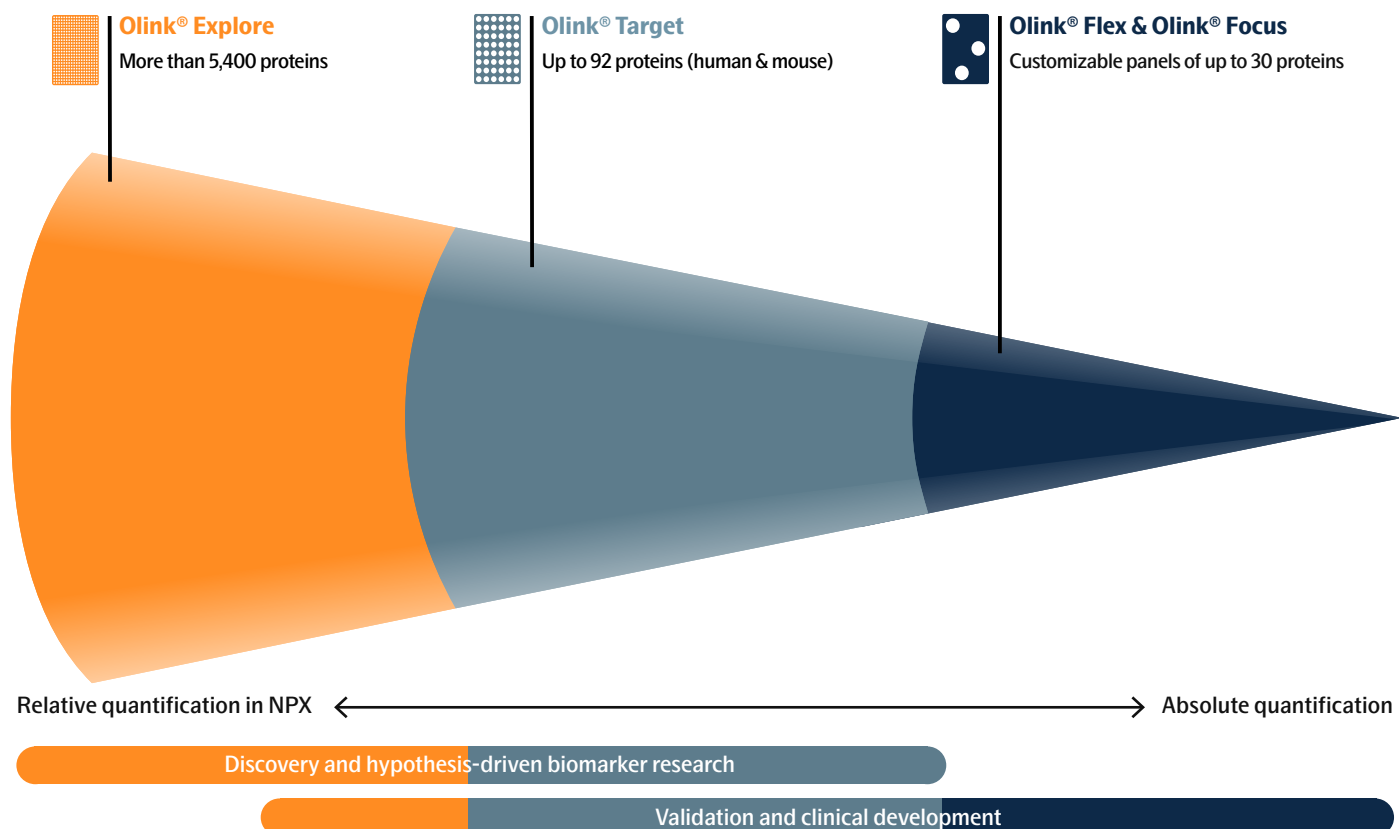


# From biomarker discovery to clinical utility, on one platform

Olink is committed to accelerating proteomics together with the scientific community and providing deeper understanding of real-time biology in human health and disease. This is enabled through the ground-breaking Proximity Extension Assay (PEA) technology, a uniquely scalable proteomics solution that empowers seamless transition from large-scale biomarker discovery to the development and validation of protein signatures with clinical utility.

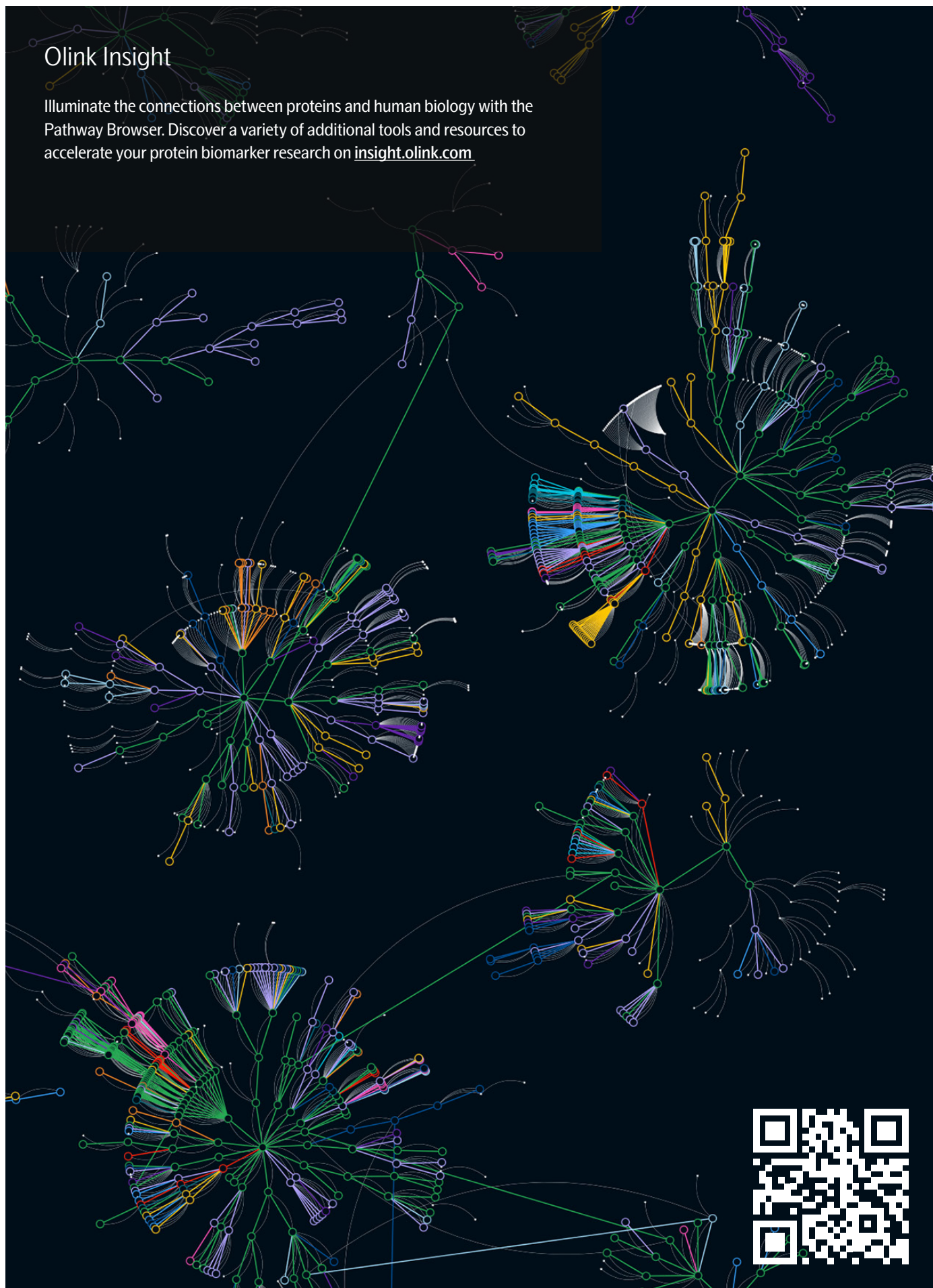
Throughout all stages of biomarker development, PEA delivers consistently high-quality data from minute volumes of biological samples, with exceptional specificity and sensitivity. This accelerates biomarker research by avoiding the complications of the “technology gap” usually encountered when using multiple methodologies at different stages.

Olink Insight, an open-source proteomics knowledge hub, further enhances the smooth transition of PEA across the biomarker discovery-to-implementation process, offering researchers a set of bioinformatic and biostatistical tools for streamlined study planning and data analysis, as well as various layers of curated data for accelerated insights into proteomics data.



# Olink Insight

Illuminate the connections between proteins and human biology with the Pathway Browser. Discover a variety of additional tools and resources to accelerate your protein biomarker research on [insight.olink.com](https://insight.olink.com)



# Olink technology at the center of scientific breakthroughs

Only by confidently measuring the correct proteins can you gain real biological understanding and make informed decisions. Incorrectly identified biomarkers lead to erroneous conclusions, wasted time and resources, and potentially grave consequences for future clinical application and drug development programs. All Olink products undergo a rigorous validation process to ensure accuracy and precision, and the validation data is publicly available on the Olink website.

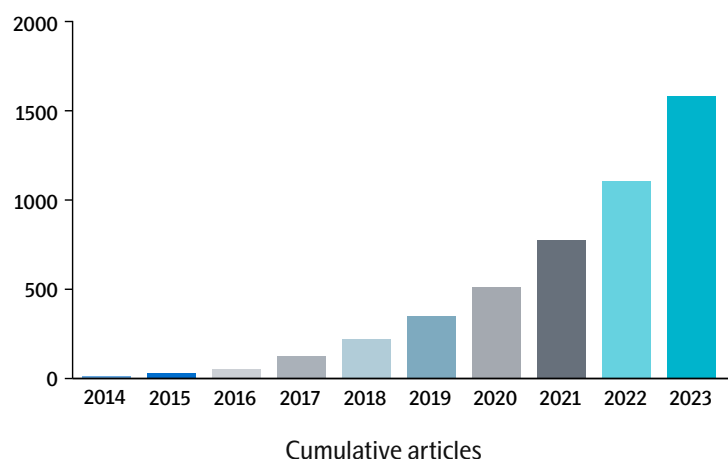
The superior specificity of PEA compared to other multiplex proteomics technologies is supported by a large body of genetics-based evidence.

- More proteins regulated by sequence variants within their own genes (cis-pQTLs) – genetic validation of correct protein measurement.
- Higher number of associations between pQTLs identified using PEA and clinically relevant phenotypes.
- The UK Biobank Pharma Proteomics project used PEA to measure ~3,000 proteins in over 54,000 participants. They reported the discovery of >14,000 genetic associations with protein expression levels – 83% of all measured proteins showed at least one pQTL. Sun et al., (2023) Nature.

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## Proven track record

PEA cited in over 1,600 peer-reviewed articles (as of Feb 2024)



Olink is used in

- 75+ clinical trials
- 800+ academic institutions
- All top 30 pharma
- Global consortia

## Multiple sclerosis activity assessment with serum-based protein panel

Olink's PEA platform was used to analyze over 1,400 proteins in serum samples of MS patients. This led to the development of an Olink Focus panel for further verification of the results. The work resulted in an 18-protein serum-based assay for assessment of disease activity, which has undergone both analytical and clinical validation for LDT use.

## Predicting response to ICI in melanoma patients

Olink Explore was used to analyze over 1,400 proteins in melanoma patient serum samples before and during anti-PD-1 treatment, thereby identifying differentially expressed proteins between responders and non-responders and enabling improved patient management through novel predictive biomarkers.



## Early screening of ovarian cancer

Circulating plasma levels of over 1,000 proteins were measured in patients with benign vs malignant ovarian cancer. A signature with 11 proteins (established and novel biomarkers) was identified and a custom 11-plex panel was developed and validated and shown to accurately differentiate benign tumors from ovarian cancer.

## CSF proteome profiling across the Alzheimer's disease spectrum

Olink technology was used to measure close to 1,000 proteins in cerebrospinal fluid samples of patients with mild cognitive impairment, Alzheimer's disease (AD), and non-AD dementia (n=797). An 8- and 9-biomarker panel was consequently developed, which was able to distinguish AD from controls, showcasing the power of large cohorts combined with a robust and scalable technology.





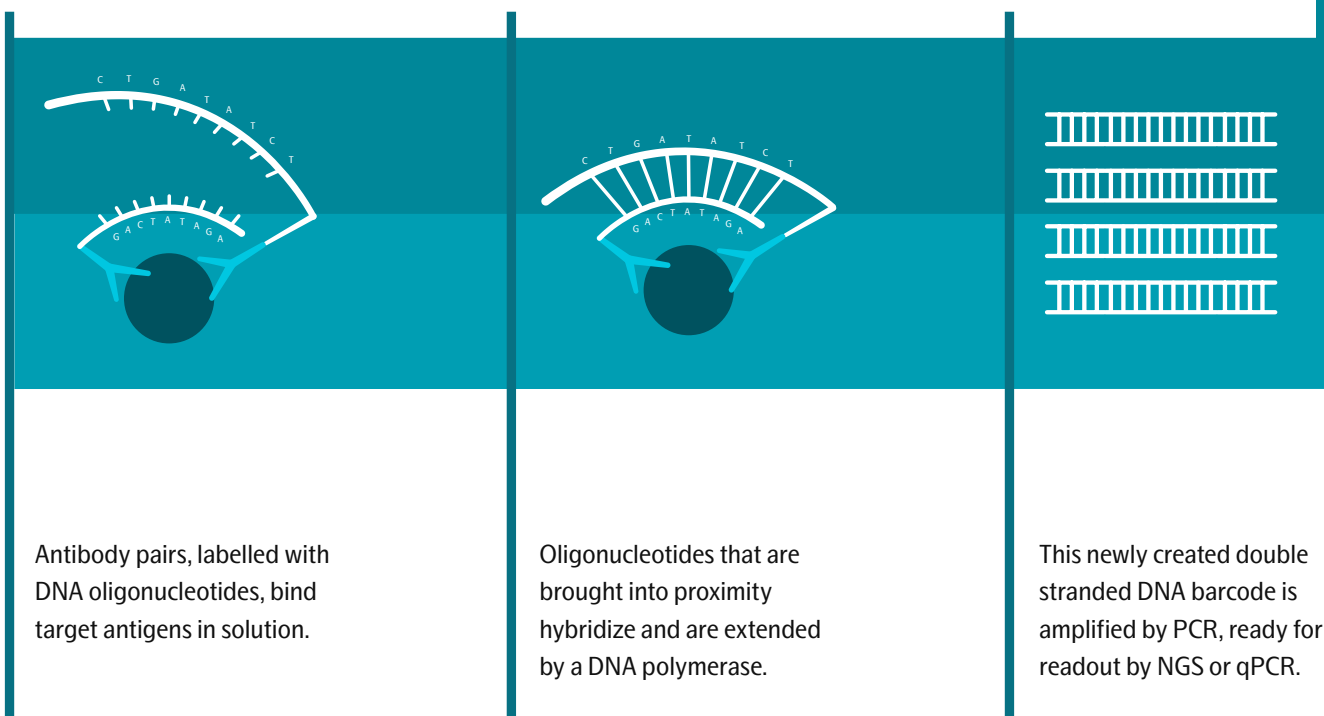
# True biological insights captured with PEA

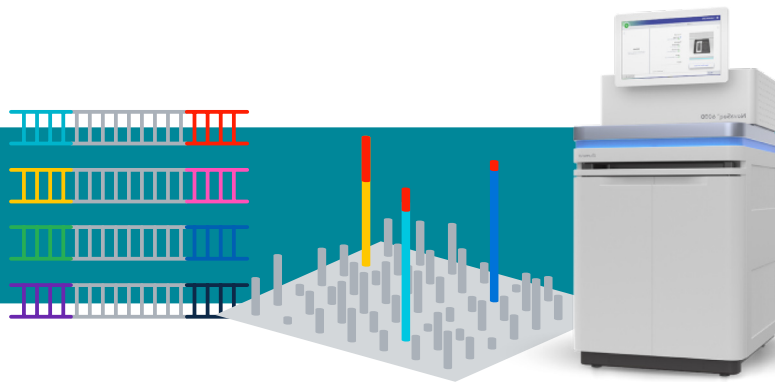
## Industry-leading specificity ensures high-quality data

For each protein target, two oligonucleotide-coupled antibodies (PEA probes) must bind in close enough proximity to enable the oligos to hybridize and form a unique DNA template for detection by qPCR or NGS. This means that as little as 1 to 6  $\mu\text{L}$  sample volume is needed to measure large numbers of proteins simultaneously.

Hence, the problems normally associated with multiplexed immunoassays are overcome, since any potential antibody cross-reactivity will not contribute to a detection signal. This degree of specificity is a hallmark of PEA.

## Main pre-readout steps in PEA





NGS readout for large-scale protein biomarker discovery

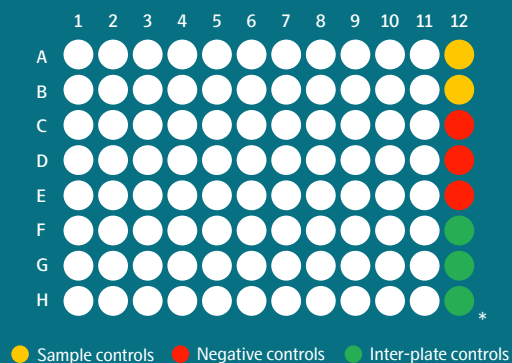


qPCR readout for targeted protein biomarker discovery and validation

## Integrated controls at every step

Specifically engineered internal controls are added to every single well to monitor each step of the PEA protocol. An external negative and a plate control sample are included for improved inter-assay precision, while sample controls are added to estimate the precision (CV).

\* The specific positioning of controls in the assay plate may vary according to the type of panel being run.



## Compatible with a wide range of sample matrices

Olink assays have been demonstrated to perform well with a wide array of sample types (such as cerebrospinal fluid, dried blood spots, tumor biopsies, atherosclerotic plaques), requiring only minimal quantities of precious samples.

# Olink Explore HT: Unprecedented power for proteomics at any scale

Olink Explore HT is designed for outstanding performance at any scale of protein biomarker discovery, from pilot investigations with a few hundred samples to the largest population studies with biobank cohorts. Measure 5,400+ protein biomarkers with industry-leading specificity using PEA technology.

## Any project you can imagine

Accelerate your path to actionable biomarker discovery with a streamlined workflow and automated QC, enabling a 4-fold faster workflow and a 6-fold reduction in reagents. The Olink Explore HT software suite is designed for high-throughput data, offering a fully automated workflow to optimize the data pipeline. This enables faster data analysis and more extensive quality control than ever before.

- Olink® NPX Explore HT is an advanced desktop software performing QC analysis and delivering Normalized Protein Expression (NPX) values
- Olink® Explore CLI is a powerful software facilitating efficient analysis of large-scale data sets through seamless integration with laboratory LIMS
- Simplified Plate QC is a new integrated software concept for better, faster QC minimizing manual steps, optimal for your data pipeline

Learn more: [olink.com/exploreht](https://olink.com/exploreht)

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## Carefully curated to provide deeper biological insights

Our biomarker selection strategy focuses on functional, actionable, druggable, and circulating proteins drawn from protein annotations, publications, clinical trials, approved therapies, and researcher requests.

- High proteome coverage – 85% more assays than the previous generation of Explore
- Extensive pathway coverage – 100% of all top-level pathways and 84% of all pathways in the Reactome database





## Olink Explore 384: A modular offering for hypothesis-driven biomarker discovery

Complementing our flagship Olink Explore HT offering, Olink Explore 384 encompasses eight, non-overlapping panels for analyzing specific proteins related to cardiometabolic biology, inflammation, neurology, or oncology, providing a flexible and efficient solution for targeted investigations. Each panel measures ~370 human proteins across a maximum of 352 samples, all while using just 1 µL of sample.

# Olink Target

## The quality standard for multiplex immunoassays

43–92 analytes  
per panel

1  $\mu$ L sample  
volume

Absolute or  
relative quant.

Rigorous  
validation

Olink Target provides a selection of comprehensive protein biomarker panels tailored to a wide range of therapeutic areas and biological processes. These panels are accessible as part of the Target 96 and Target 48 offering and run on the user-friendly Signature Q100 instrument using only 1  $\mu$ L of sample.

### Olink Target 96

Offers a selection of 15 panels, carefully designed from a library of ~1,000 assays and built for specific disease areas or key biological processes, each providing simultaneous analysis of 92 protein biomarkers.

Perfect for proof-of-concept or hypothesis-driven studies.

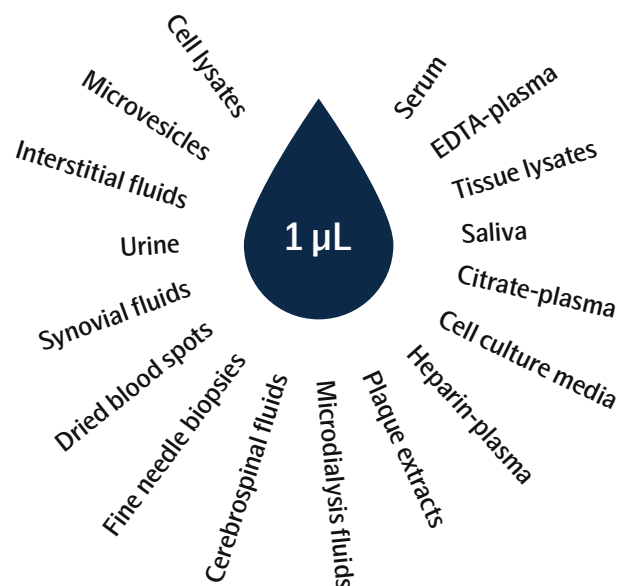
- Thoroughly validated in scientific literature, used with a wide range of sample types.
- 88 samples per kit, read out in relative quantification.
- Available as kits to be run in your lab, Olink service providers or Olink Analysis Service.

Learn more: [olink.com/target](https://olink.com/target)

#### Research areas covered with Target 96 panels:

- Cardiovascular disease
- Neurology
- Oncology
- Immuno- Oncology
- Inflammation
- Biological processes

Target 96 unlocks deeper biological insights with just 1  $\mu$ L of your precious sample, with a wide range of compatible sample types.





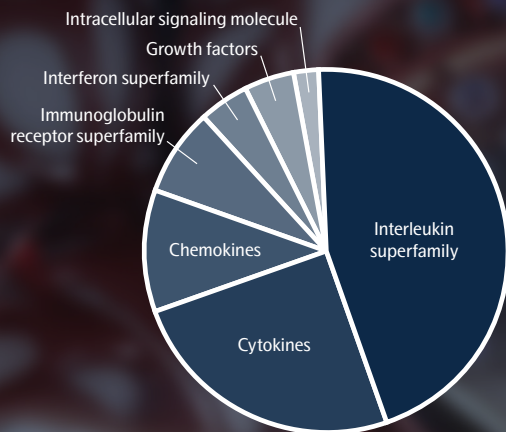
# Olink Target 48

## Olink Target 48 Mouse Cytokine

Enables a comprehensive view of the murine immune system by measuring 43 key inflammatory mediators to unlock in-depth disease modeling, longitudinal studies and translational research.

- Maximizes data yield from each valuable mouse.
- 40 samples per kit, readout in absolute and relative quantification.
- Available as kits to be run in your lab or at Olink service providers.

Learn more: [olink.com/mouse](https://olink.com/mouse)



## Olink Target 48 Cytokine

Provides the ultimate solution for human studies of inflammation and the immune response. The thorough biomarker selection allows for simultaneous quantification of 45 low abundance proteins, relevant across a variety of diseases.

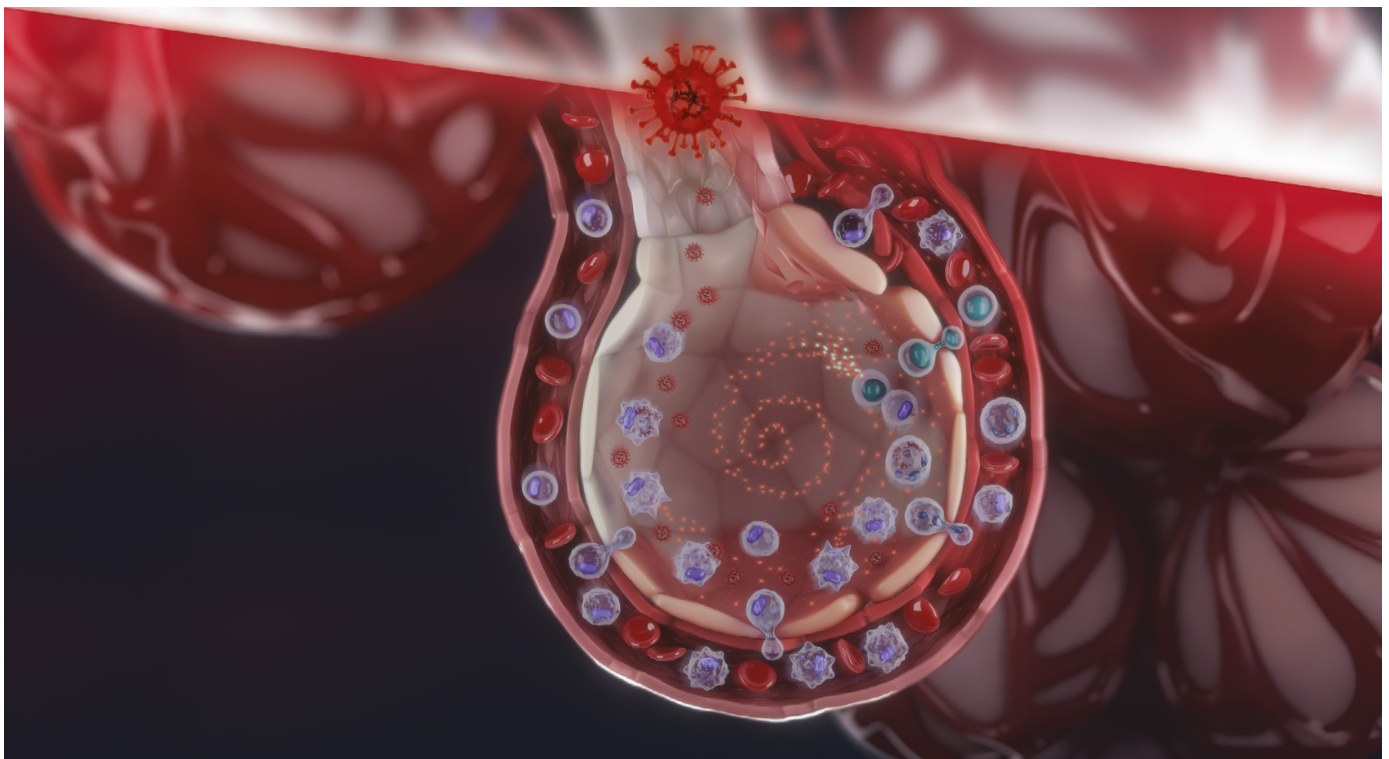
Perfect for understanding biological mechanisms in disease research and drug development.

- 40 samples per kit, readout in absolute and relative quantification.
- Available as kits to be run in your lab or a Olink service providers.

Learn more: [olink.com/target](https://olink.com/target)

Carefully selected biomarker assays, perfect for studying:

- Autoimmune diseases (e.g. rheumatoid arthritis, Crohn's disease, IBS, multiple sclerosis, systemic lupus erythematosus, psoriasis).
- Neurological diseases (e.g. Alzheimer's).
- Cardiovascular diseases.
- Cancer.
- Asthma, obesity, diabetes, and more.





# Olink Flex & Focus

## Flexible multiplexing without compromise

5–30 analytes  
per panel

1  $\mu$ L sample  
volume

Absolute or  
relative quant.

Rigorous  
validation

Olink Flex and Focus enable users to customize protein biomarker panels to fit their research needs, paving the way for clinical applications. With the flexibility to design panels with 5-30 biomarkers, researchers can mix and match from nearly 200 assays from the Flex library or collaborate with Olink's R&D experts to create a Focus panel from the entire Olink library.

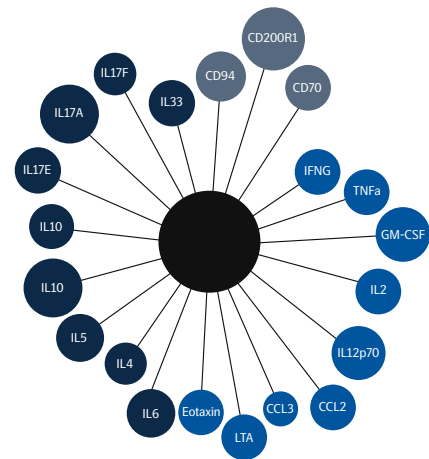
## Olink Flex

Olink Flex offers a wide selection of expertly designed protein biomarker panels, covering areas such as:

- Immuno-Oncology
- Cytokine storm
- Th1/Th2/Th17 response
- Inflammation in aging
- IFN stimulation

Users can further customize these pre-designs to fit their research needs, or build an entirely new panel from a library of close to 200 pre-validated protein biomarker assays.

Learn more: [olink.com/flex](https://olink.com/flex)



Olink Flex Th1/Th2/Th17 panel

## Olink Focus

Olink Focus is a custom-made product developed in collaboration with Olink's R&D experts to enable researchers to take the next important steps towards protein biomarker validation and implementation.

When you have defined an informative protein profile from running our Explore or Target panels, we can work with you to design and validate your own Olink Focus panel of up to 21 proteins from the entire Olink library with readout in absolute quantification.

Learn more: [olink.com/focus](https://olink.com/focus)

# Olink Signature Q100

## Run Target, Flex & Focus on one benchtop instrument

Streamline your workflow of Target, Flex and Focus panels in your own lab with the user friendly, low-maintenance Signature Q100 benchtop instrument.

Supported product lines include:

- Olink Target 96
- Olink Target 48 Cytokine and Mouse Cytokine
- Olink Flex
- Olink Focus

Other noteworthy features:

- User-focused design and intuitive interface, including integrated software and IFC loader
- Low investment threshold, broadening access to proteomic profiling to more researchers than ever before
- Small, compact footprint
- Tiered service agreements



# Olink provides expert support along every step of the data journey

From strategic study planning to actionable insights from your proteomic data, Olink delivers a comprehensive suite of expertise, tools, and services tailored to accelerate your protein analysis data-to-result journey, providing expert support at every stage of your data journey.

**NPX software**  
Data QC and normalization

Olink NPX software suites are essential for generating data in Olink's exclusive NPX format, empowering users to seamlessly import, validate data quality, and normalize data, ensuring precision for subsequent statistical analysis.

Study design



Biostatistical analysis



Data interpretation and presentation

## Olink data science services

Fee-for-service offer for customized biostatistical analysis to optimize the value and information output from your Olink studies. Expert guidance on design and analysis decisions for impactful and efficient outcomes.

## Olink Insight

This accessible online platform offers a rich array of tools including a protein pathway browser, disease association insights, panel selection support, study size calculation utilities, and intuitive biostatistical data analysis features.

## Olink Analyze

This package offers a versatile toolbox designed to streamline the management of Olink panel data for seamless integration into your research. It features functions for importing datasets, quality control plots, statistical tests, and more.



# Data that tells a story

One powerful feature of Olink Insight is Disease Atlas. This is a significant step towards uncovering the human disease proteome and offers a valuable resource for researchers in many areas of medicine and biology.

It provides an open-access collection of proteomic profiles for some of the most important diseases:

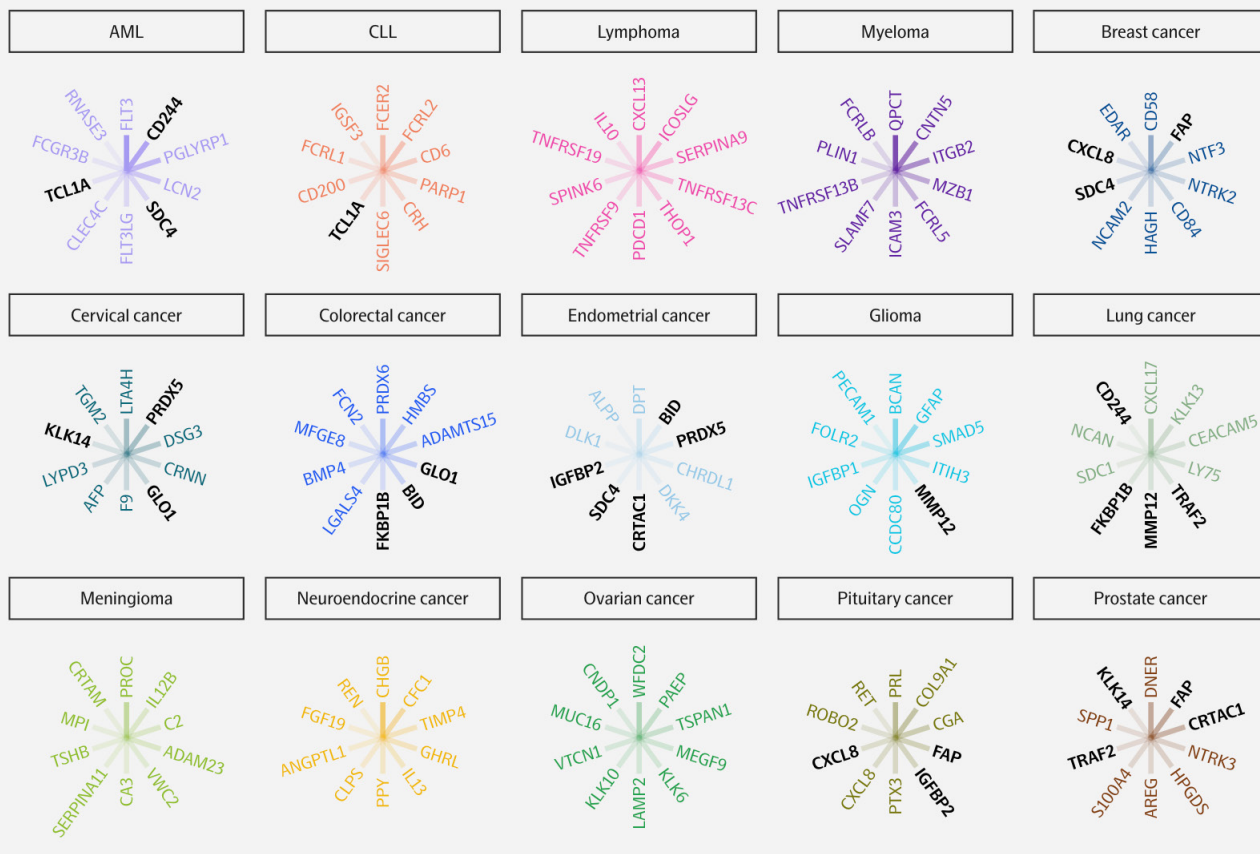
- Compare and explore observed protein expression profiles for each disease
- Identify robust biomarkers for each disease
- Use the Hexmap and Pathway enrichment to understand which biology is affected for each disease
- Access multi-protein modeling using 'lasso logistic regression' to generate predictive biomarker groups for all diseases

Learn more: [insight.olink.com](https://insight.olink.com)



## Selected 10-protein models for each cancer type

Olink Insight provides bioinformatic resources to support the interpretation and utility of protein biomarker data. It enables the exploration of protein-disease associations, provides data on the natural variability of protein levels, tissue specificity, molecular functions, drug target information and much more. The illustration below shows diagnostic protein signatures for multiple forms of cancer from the Disease Atlas interactive data story on Olink Insight.



# Access our proteomics solutions

Olink offers three convenient ways to access PEA technology to meet the unique needs and preferences of individual researchers.

## **Olink Analysis service**

Olink runs labs in Uppsala and Boston with full analysis service from pre-study discussion to data delivery. If you need support or want to discuss additional data analysis after your project, Olink will support you along every step of the way.

## **Service providers**

Olink's worldwide network of service providers supports scientific discovery globally. Send your samples to one of the numerous labs around the globe with trained experts in running the Olink platform and rapidly access the high-quality data your study depends on.

## **Run samples in your lab**

Our platforms can be run in any suitably equipped and trained facility, enabling you to purchase our reagents as kits that you can run yourself.

Learn more: [olink.com/access](https://olink.com/access)

## www.olink.com

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