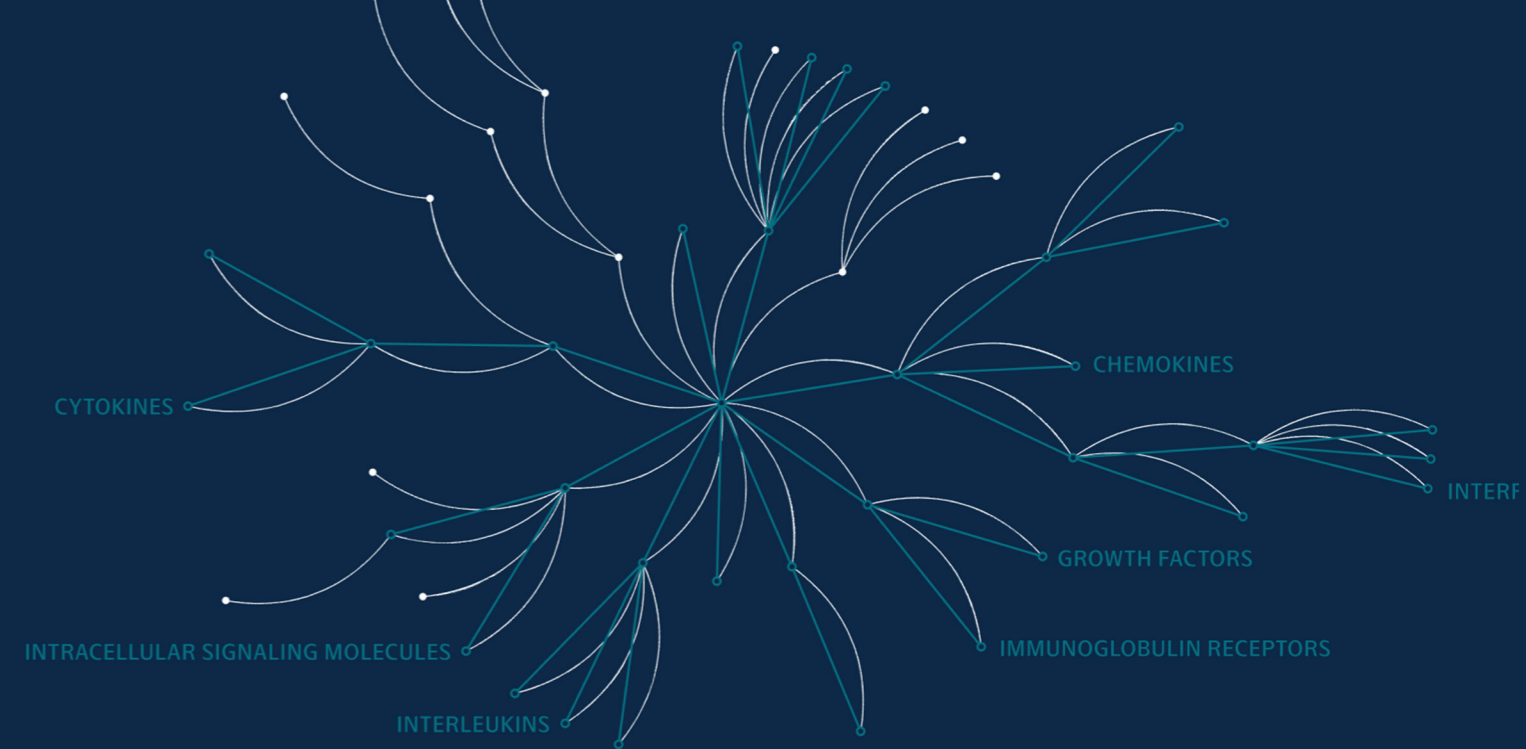


Olink<sup>®</sup> Target 48 Mouse Cytokine

Translational Insights from just 1  $\mu$ L

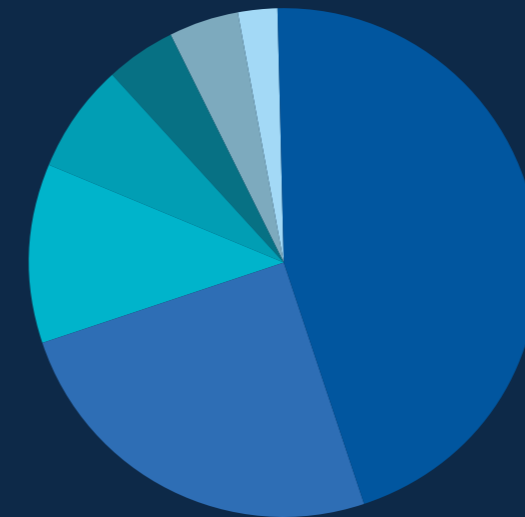
# Olink® Target 48 Mouse Cytokine Translational Insights from just 1 µL

Gain a comprehensive view of the murine immune system, enabling in-depth disease modeling, longitudinal studies and translational research.



## Deeper biological insights from key immune mediators

The careful selection of 45 biomarkers representing essential biological processes and pathways enables translational research across many different therapeutic areas.



### Protein category

- Interleukin superfamily  
IL-12 (p70), IL-4, IL-2, IL-1β, IL-33
- Cytokines  
GM-CSF, CSF1
- Chemokines  
CCL2, CCL22, CXCL9, CX3CL1
- Immunoglobulin receptor superfamily  
CTLA-4, PD-L1, PD-L2
- Interferon superfamily  
IFN-α2, IFN-γ
- Growth factors  
HGF, VEGF-A
- Intercellular signal molecule

[Download assay list](#)



Species

**Mouse**

Reactivity



Proteins

**45**

Validated



Sample

**1 µL**

Plasma, serum & more



Readout

**pg/mL**

Absolute units



Runs on

**Signature**

Q100

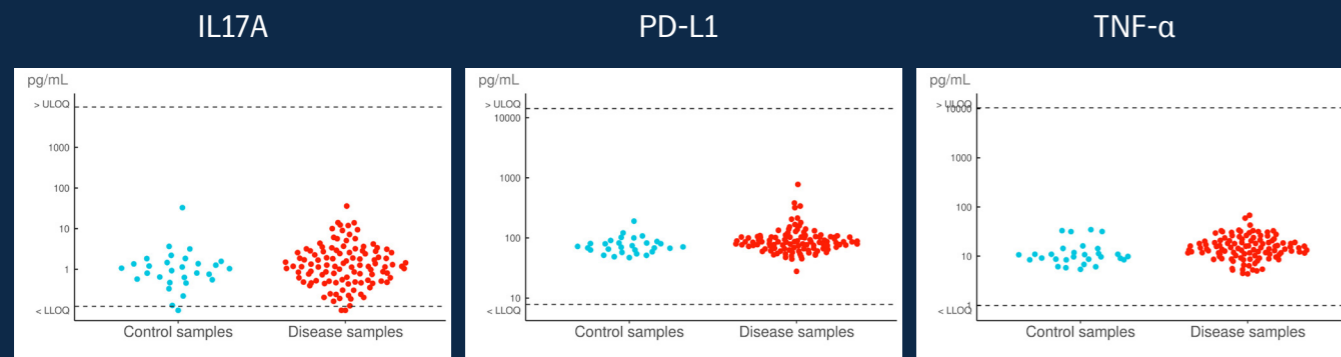
## Proximity Extension Assay

Dual antibody recognition assay format ensures high specificity, while PCR amplification readout provides outstanding sensitivity. Backed by our comprehensive and transparent validation process, we ensure data quality you can trust. Additionally, our integrated controls make singlet measurements a reality.

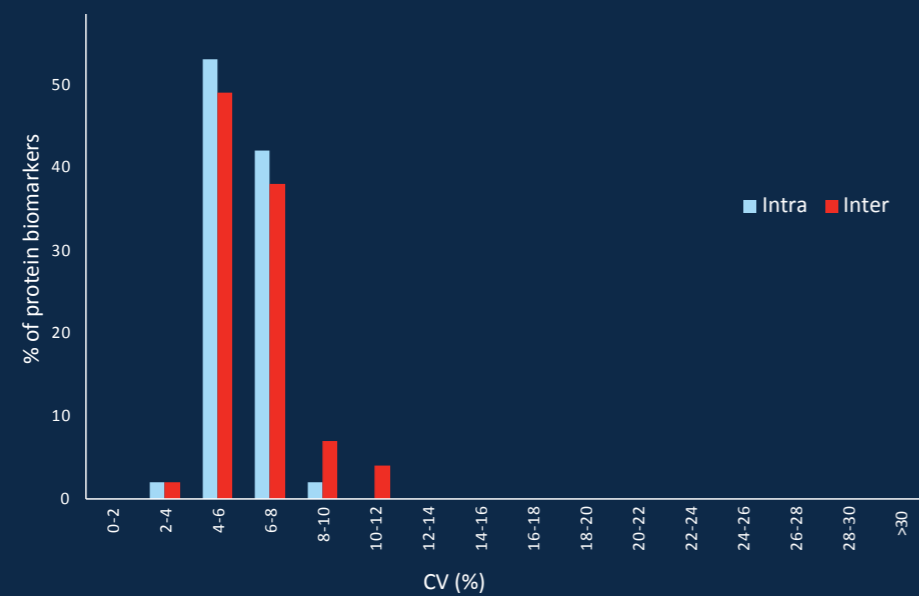


# The quality your research depends on

All Olink products undergo a rigorous validation process to ensure accuracy and precision. Our transparent validation data highlight the outstanding detectability of low to high-abundance biomarkers and the high precision within and between runs.

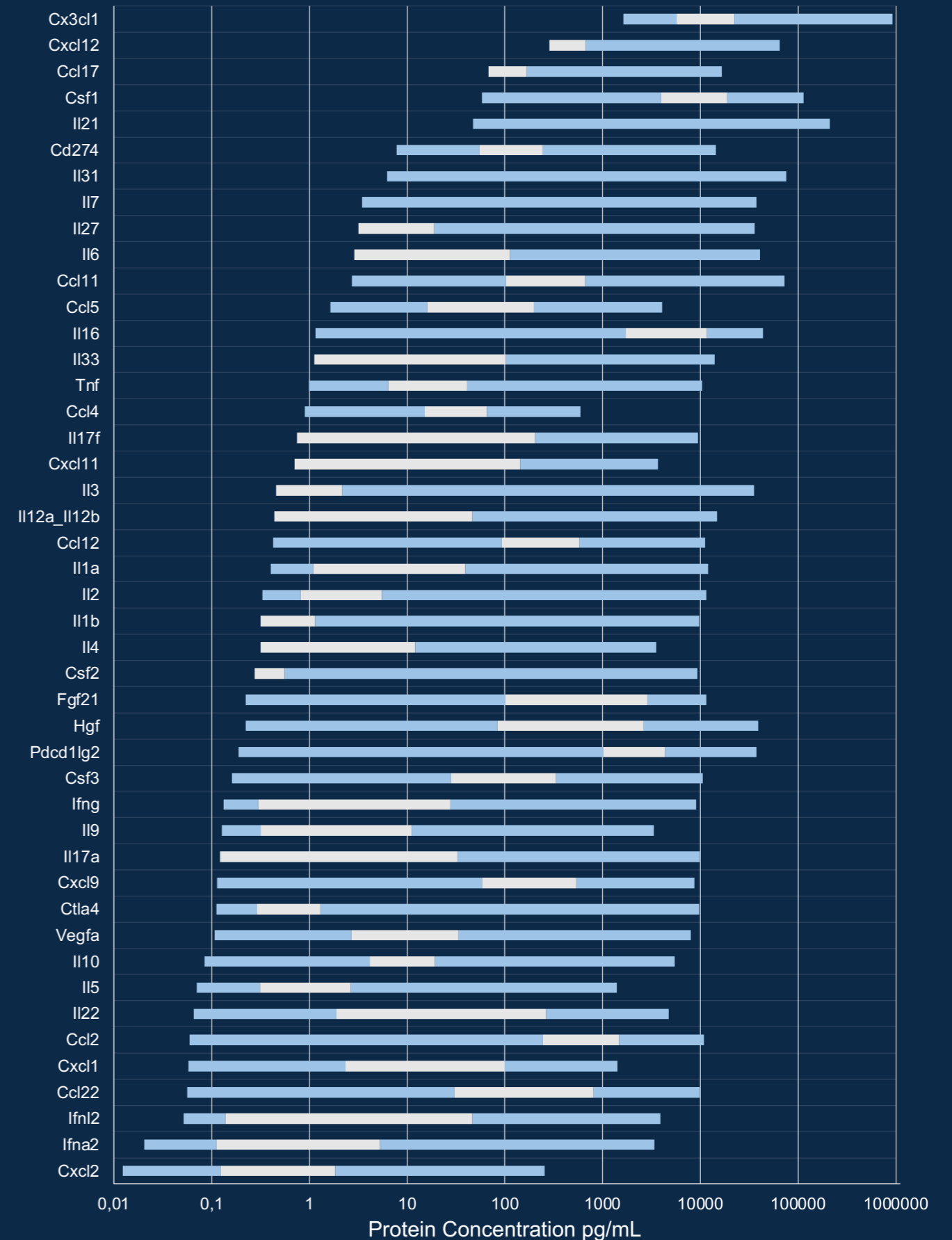


**Figure 1-3.** The plasma and serum samples (control (n=45) vs disease (n=117)) cover different murine disease models differing in genetic background, genotype, age and/or obtained treatment. The disease models used include three different cancer models, Sjögren's disease, obesity, multiple sclerosis rheumatoid arthritis, allergic rhinitis, systemic lupus erythematosus (SLE), inflammation, asthma, and Alzheimer's disease. Mouse strains: (BALB/C, CD-1 (ICR), C57BL/6, FVB/ NCRL and DBA/1)



**Figure 4.** Distribution of intra- and inter-run variations of Olink Target 48 Mouse Cytokine, assessed by evaluating triplicate measurements of the Sample Control on each plate, based on thirteen plate runs performed by three different operators.

## Dynamic range and plasma levels



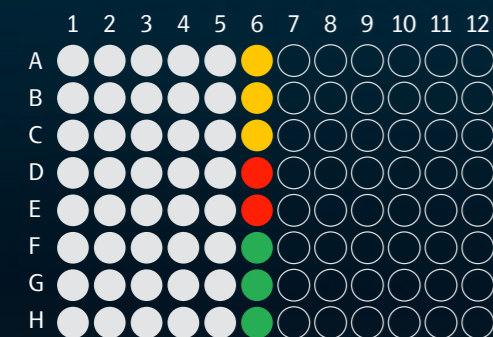
**Figure 5.** Analytical measuring range per assay in control animals, defined by the lower and upper limits of quantification (LLOQ-ULOQ), and normal plasma levels (darker bars) for the protein biomarkers.

# Streamlined workflow to actionable, high-quality data

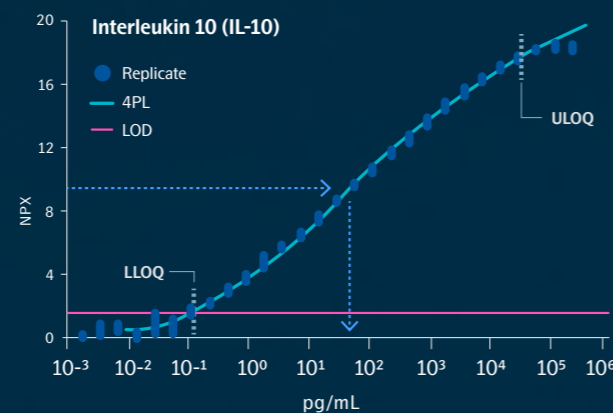
## No dilution series needed

Olink's novel method of absolute quantification allows users to skip time-consuming dilutions series, thereby minimizing the source of technical errors, increasing the calibration curve and data accuracy, as well as leaving more wells for samples.

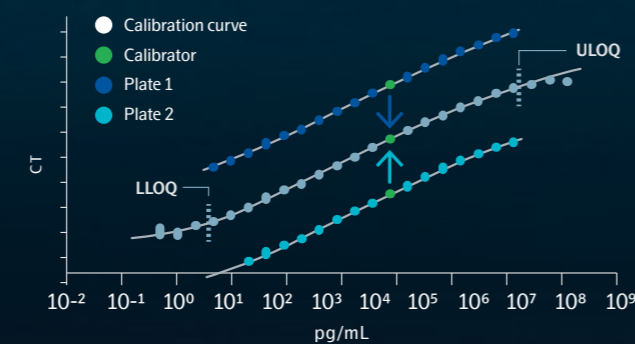
- A 24-point standard curve is established for each assay during product development (Figure 7).
- A single Calibrator point is measured in triplicates on each plate, and its median value is used to re-adjust the pre-defined calibration curve (Figure 8).
- Measured sample values are translated to pg/mL by relating back to the adjusted curve model.
- Accuracy is validated by the known concentrations in the triplicate Sample Controls.



**Figure 6:**  
 ● Sample controls      ● Calibrator  
 ● Negative controls    ● Sample



**Figure 7:** An example of a 24-point standard curve defined for each assay during development.



**Figure 8:** The Calibrator is run on each sample plate in triplicate and is used to adjust the predefined standard curves

## Integrated controls at every step

Our integrated controls enable monitoring the technical performance of every sample, making identification of outliers and singlicate measurement a reality. Internal controls are added to every single well to monitor individual sample performance, and are designed to monitor the three main steps of the Olink protocol.

The Incubation control is a non-mammal antigen, which monitors all three steps starting with the immuno reaction.

The Extension control is composed of an antibody coupled to a unique pair of DNA-tags. It monitors variation in the extension and amplification/detection step and is used to adjust the signal from each sample with respect to extension and amplification.

The Detection Control is a complete double stranded DNA amplicon which does not require any proximity binding or extension step to generate a signal. It monitors the amplification/detection step.

Incubation control



Extension control



Detection control



## Easy-to-use benchtop system

Olink® Signature Q100 allows you to skip washing steps and perform QC and normalization analysis using the NPX™ Signature software.

Other noteworthy features include:

- 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.





Learn more at [Olink.com/target48mousecytokine](https://www.olink.com/target48mousecytokine)

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