

## Olink Signature Q100

# A benchtop system for protein biomarker analysis

Olink® Signature Q100 is a dedicated system specifically designed for readout of **Olink Target** (96 & 48-plex) and **Olink Focus** (custom design) protein biomarker panels. These are focused on specific disease areas or biological processes and offer Proximity Extension Assay (PEA) technology coupled to a qPCR readout. PEA combines the best of antibody- and DNA-based methodologies to provide unique, enabling tools for protein biomarker discovery and development.

### An enabling solution for running Olink protein biomarker studies in your own lab

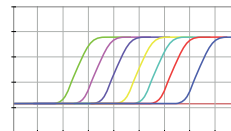
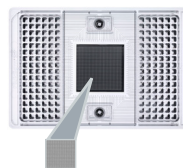
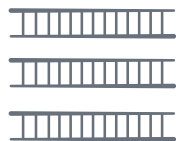
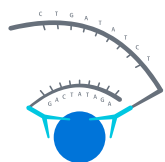
- Developed specifically for Olink's high quality Target 96/48 and Focus protein biomarker panels.
- User-focused design and intuitive interface, including integrated software and IFC loader.
- Low investment threshold, broadening access to proteomic profiling to more researchers than ever before.
- Small, compact footprint.

### Olink PEA Technology

The exponential amplification properties of PCR are utilized in PEA to achieve a strong readout signal, providing assay sensitivity on par or better than traditional enzyme-linked immunosorbent assays (ELISAs). Consequently only extremely small sample volumes are needed to measure large numbers of proteins simultaneously, greatly facilitating studies with limited sample availability, such as those using human samples from clinical cohorts or biobanks. Moreover, the requirement for correctly matched oligos on the antibody probe pairs in PEA ensures exceptional specificity even at high multiplexing levels.

### Available panels for Olink Signature

**Olink Target 96** panels are focused around a specific disease area or biological process and each enable the relative



quantification of 92 carefully selected proteins across 90 samples simultaneously, using just 1  $\mu$ L sample. This offers a uniquely flexible proteomics solution, with a library of over 1100 human proteins available via 14 different 96-plex panels.

**Olink® Target 48 Cytokine** is the ultimate solution for targeted studies focused on inflammatory diseases or processes. This panel enables analysis of 45 carefully selected proteins across 40 samples simultaneously from just 1  $\mu$ L sample. Thanks to the provision of calibrators for each assay, Olink® Target 48 Cytokine also offers absolute quantification, providing data in both standard concentration (pg/mL) and relative concentration (NPX) units.

**Olink Focus** panels are available via custom projects with our R&D experts, and offer assays for up to 21 customer-selected proteins, with a choice of absolute or relative quantification.

Olink will continue to develop additional Target and custom panel offerings to further expand the utility of Olink Signature.

**Figure Lab workflow for Olink Signature** Antibody pairs labeled with DNA oligonucleotides bind target antigen in solution, allowing hybridization and extension by DNA polymerase. This newly created piece of DNA barcode is amplified by standard PCR before transfer to an integrated microfluidic chip (IFC), which is loaded into the instrument for qPCR and data readout.

## Instrument specifications

## Olink Signature Q100

## Dimensions

Depth	60 cm (23.6 in)
Width	27 cm (10.6 in)
Height	55 cm (21.6 in)
Weight	38 kg (83.6 lb)

## Thermal control

Peltier-based, 4–99 °C

## Heating ramp rate

Up to 5.5 °C/sec

## Cooling ramp rate

Up to 5.5 °C/sec

## Fluorescence excitation

475 nm, 575 nm

## Fluorescence emission

525 nm, 630 nm

## Instrument control computer

Memory	16 GB
Storage	1 TB HDD
Ports	3 USB (1 in front, 2 in back) 1 GB/sec Ethernet

## Power requirements

100–240V; 8.0 Amp

Olink provides a region-specific power cord for the Signature Q100 system.

## Work environment (indoor use only)

Temperature	15–30 °C (59–86 °F)
Humidity	20%–80% relative humidity, non-condensing
Altitude	Not to exceed 2,000 m (6,560 ft) above sea level

## Supported IFCs

Protein expression	Olink® 96.96 IFC for Protein Expression  Olink® 48.48 IFC for Protein Expression  Olink® 24.192 IFC for Protein Expression
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## Compliance

- Low Voltage (LVD) 2014/35/EU
- Electro Magnetic Compatibility (EMC) 2014/30/EU
- Restrictions on the use of certain hazardous substances in Electrical and Electronic Equipment (RoHS) 2011/65/EU
- Waste Electrical and Electronic Equipment (WEEE) 2012/19/EU

## Software

Data collection	Signature Q100 Instrument software
Analysis	Signature NPX Manager software

[www.olink.com](http://www.olink.com)

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