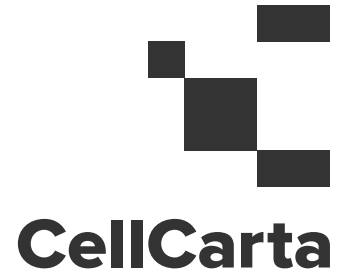


High Performance Technologies for Cytokine Measurement



Unmatched Expertise in Immunoassays for Cytokine Measurement

At CellCarta, we offer four platforms for cytokine measurement: Olink®, Meso Scale Discovery®, Ella™, and ELISA. Each of these immunoassays come with unique advantages, depending on your specific application. Our team partners with you to select the right technology that will provide you with precise cytokine measurement and answer your clinical questions.

CellCarta's sample processing team brings years of experience handling a wide range of matrices, from serum and plasma to delicate skin strips and complex cell lysates. We ensure your samples are meticulously prepared and ready for precise detection, delivering reliable and accurate results every time.

MESO SCALE DISCOVERY® MSD® PLATFORM

- **High specificity and multiplexing capacity:** high throughput, fast results, cost-effective for two or more analytes
- **High sensitivity** levels with ability to target low analyte levels in small sample volumes (25-40 µL/panel)
- **Dynamic range** to detect high and low levels of cytokines with **5-log dynamic range and low limit of detection**
- **Exceptional reproducibility**
- **Flexibility:**
 - Multiplex reactions in 96- and 384-well plates
 - **Standard panels** and **custom panels** of up to 10 analytes to address your specific needs
 - Works with a **variety of samples:** serum, plasma, tissue culture media and more

OLINK® PEA TECHNOLOGY

- **High specificity and multiplexing capacity** enabled by dual recognition of correctly matched PEA probes and DNA sequence-specific protein-to-DNA conversion to generate a signal
- **High sensitivity** levels achieved with extremely small sample volumes (1 µL/panel) via PCR amplification
- **Wide dynamic range (10-log)** and **low limit of detection**
- **Exceptional reproducibility** achieved through semi-automated workflow
- **Flexibility:**
 - Allows for two readout alternatives: NGS readout for large-scale protein biomarker discovery or qPCR readout for targeted protein biomarker discovery
 - Extensive range of 48-plex and 96-plex biomarker panels with qPCR readout, each focused around a specific disease area or biological process

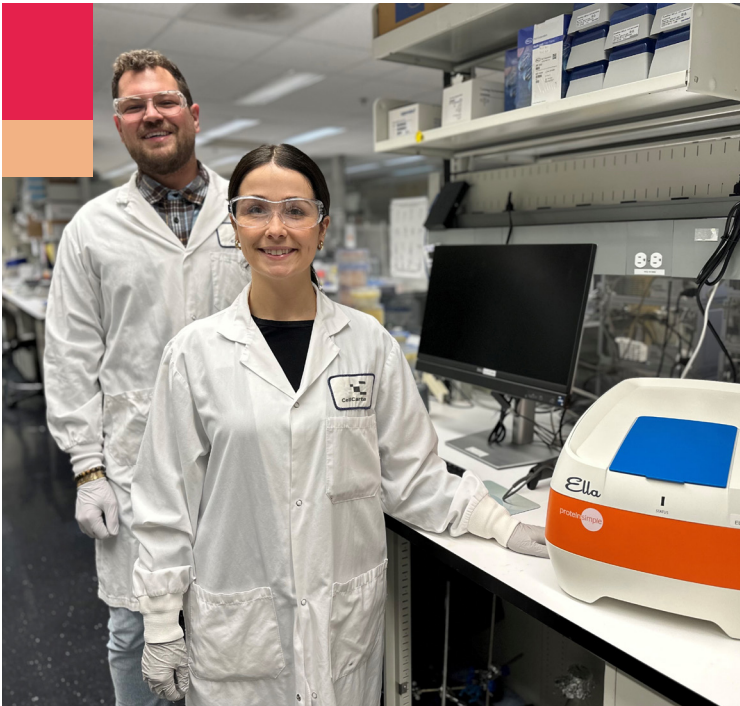
ELLA™

- **High specificity and multiplexing capacity** enabled by the use of pre-configured ELISA cartridges built on R&D Systems™ technology
- **High sensitivity** of <1 pg/mL (assay-dependent)
- **Dynamic range of up to 4 logs** of exceptional reproducibility achieved through tightly controlled automation
- **Exceptional reproducibility** achieved through tightly controlled automation
- **Flexibility:**
 - Generate up to **256 results** in **under 90 minutes**

The exceptional sensitivity of immunoassays enables the detection of low abundant biomarkers necessary in many clinical applications such as **risk assessment, pharmacodynamic effects, prognosis, monitoring of disease progression** and **response to therapies**.

Partner with CellCarta for Flexible Solutions to All Your Applications

Olink®, MSD®, and Ella™ match or exceed the sensitivity and performance offered by single-plex ELISAs while providing additional benefits, including the ability to multiplex, and a broader dynamic range. The ability to multiplex enables low sample volumes and improves throughput, cost-savings, as well as data consistency, by enabling analysis of many different target analytes within the same assay environment.



	MESO SCALE DISCOVERY® MSD® PLATFORM	OLINK® PEA TECHNOLOGY	ELLA™	ELISA
Detection Method	Electrochemiluminescence	Fluorescence	Fluorescence	Colorimetric reaction
Platform	Working electrode surface	NGS or qPCR	Microfluidic channels	96-well Nunc Immunoplates
Multiplexing	Yes	Yes	Yes	Limited
Sample Volume	~25-100 µL/panel	~1 µL/panel	2.5-25 µL/panel	~50-100 µL/panel
Sensitivity	High	High	<1 pg/mL (assay dependent)	High
Specificity	High	High	High	High
Dynamic Range	4-5 log	4-5 log	3-4 log	1-2 log
Readouts	Up to 10 analytes/plate	92 analytes/plate*	Up to 256 analytes/plate	One analyte/plate
Regulatory	Exploratory or secondary endpoints	Exploratory endpoints	Exploratory endpoints	Exploratory, secondary or primary endpoints

*Using the Olink Target 96 Immuno-Oncology panel.

TALK TO ONE OF OUR SCIENTISTS FOR GUIDANCE ON WHICH PLATFORM IS BEST SUITED FOR YOUR NEED.

SS_CytMeasurement_2024-07-24



ABOUT CELLCARTA

Leading provider of specialized precision medicine laboratory services to the biopharmaceutical industry. Leveraging its integrated analytical platforms in immunology, histopathology, proteomics and genomics, as well as related specimen collection and logistics services, CellCarta supports the entire drug development cycle, from discovery to late-stage clinical trials. The company operates globally with 9 facilities located in Canada, USA, Belgium, Australia and China.

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