

## Q-Plex™ Human Cytokine Inflammation Panel 1 (9-Plex)

The Q-Plex™ Human Cytokine Inflammation Panel 1 (9-Plex) is a fully quantitative ELISA-based chemiluminescent assay allowing the concurrent measurement of nine biomarkers or analytes: IFN $\gamma$ , IL-1 $\alpha$ , IL-1 $\beta$ , IL-2, IL-4, IL-6, IL-8, IL-10, and TNF $\alpha$ .

Each kit contains a 96-well plate, featuring the relevant biomarker panel, and all the reagents required to perform testing. Q-Plex™ plates are built by absorbing nine distinct capture antibodies in a defined array to the bottom of each well. Our high quality reagents help ensure the accuracy of your results.

Using just 50  $\mu$ L of sample per well, up to 80 samples can be assayed for all nine markers in the panel within 2.5 hours. Q-Plex™ Arrays provide researchers with an easy-to-use and cost effective means of generating a cytokine profile for each sample.

Catalog #	Product	Markers
110433HU	Q-Plex™ Human Cytokine Inflammation Panel 1 (9-Plex)	IFN $\gamma$ IL-4 TNF $\alpha$ IL-1 $\alpha$ IL-6 IL-1 $\beta$ IL-8 IL-2 IL-10

### Product Range

Analyte	Assay Type	Calibrator Range	Upper Limit of Quantification (ULOQ)	Lower Limit of Quantification (LLOQ)	Limit of Detection	Precision* (Inter-assay)	Precision* (Intra-assay)	Average* Linearity
IFN $\gamma$	Sandwich	8000 -10.97 (pg/mL)	5600 (pg/mL)	14.3 (pg/mL)	4.95 (pg/mL)	8%	6%	97%
IL-1 $\alpha$	Sandwich	4000 -5.49 (pg/mL)	2800 (pg/mL)	7.1 (pg/mL)	5.43 (pg/mL)	6%	3%	86%
IL-1 $\beta$	Sandwich	12226 -16.77 (pg/mL)	8558 (pg/mL)	21.8 (pg/mL)	12.40 (pg/mL)	8%	6%	94%
IL-2	Sandwich	5213 - 7.15 (pg/mL)	3649 (pg/mL)	9.3 (pg/mL)	4.12 (pg/mL)	6%	5%	99%
IL-4	Sandwich	1676 - 2.30 (pg/mL)	1173 (pg/mL)	3.0 (pg/mL)	1.79 (pg/mL)	6%	4%	94%
IL-6	Sandwich	3000 - 4.12 (pg/mL)	2100 (pg/mL)	5.3 (pg/mL)	3.47 (pg/mL)	7%	7%	104%
IL-8	Sandwich	2000 - 2.74 (pg/mL)	1400 (pg/mL)	3.6 (pg/mL)	1.37 (pg/mL)	12%	7%	100%
IL-10	Sandwich	8039 - 11.03 (pg/mL)	5627 (pg/mL)	14.3 (pg/mL)	10.99 (pg/mL)	7%	4%	103%
TNF $\alpha$	Sandwich	6500 - 8.92 (pg/mL)	4522 (pg/mL)	11.5 (pg/mL)	7.74 (pg/mL)	6%	6%	98%

\* Actual values may vary from kit to kit. Please see the In-Kit Certificate of Analysis included in your kit for specific values.

# The Q-Plex™ Array

## Spotting in 96 Well Plate

- ▶ Robotic liquid handlers print 20-50nL spots of capture antibody
- ▶ Each spot is a unique assay within the well
- ▶ Low spot-to-spot variability (CV)
- ▶ Spot size 350-500µm
- ▶ Plates are QC'd for spot quality

## Performing the Assay

- ▶ Add as little as 25µL of sample
- ▶ Wash
- ▶ Add mix of detection antibodies specific to kit
- ▶ Wash
- ▶ Add streptavidin conjugated HRP

## Detection of Sample

- ▶ With the addition of substrate, a response is produced
- ▶ If antigen is present the spot emits a signal proportional to the amount of antigen in the sample
- ▶ If no antigen is present, the spot is not visible

## Image Capture

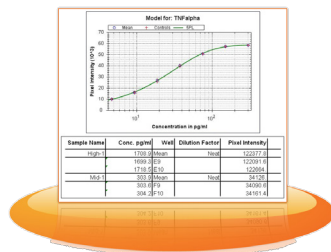
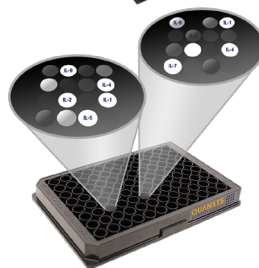
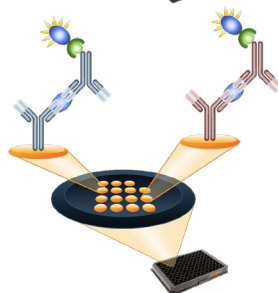
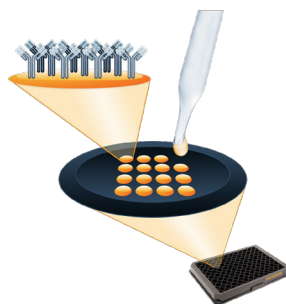
- ▶ An image of the plate is taken via a high resolution camera contained within the Q-View™ Imager LS

## Image Analysis

- ▶ Image is opened in Q-View™ Software
- ▶ Spots are automatically found on plate image
- ▶ Intensity of spot response is measured and raw data is generated
- ▶ User imports product specs and well layout

## Data Analysis

- ▶ Raw data is analyzed and compared to in-plate standard
- ▶ Regression models used to calculate unknowns
- ▶ Standard curves are calculated and sample and statistical data is exported



Increase productivity with Quansys products and services. Save time, sample, and money.

## Q-Plex™ ARRAYS

Our Q-Plex Arrays are quantitative multiplex ELISAs with distinct proteins deposited in a defined array. Choose one of our standard kits for immediate delivery or customize the exact array you need.

## Q-View™ IMAGERS

The Q-View™ Imager LS is a high quality, low-cost imaging systems for chemiluminescent assay imaging.

## Q-View™ SOFTWARE

The Q-View Software is a user-friendly image analysis app that enables the acquisition and analysis of large amounts of multiplex ELISA data.

## SAMPLE TESTING SERVICE

Our lab runs immunoassays on a wide variety of biological samples. Increase productivity and focus on your core research while we test your samples for you.



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Quansys is an ISO 9001:2015 and ISO 13485:2016 registered company and complies with cGMP. Products are designed, developed, and manufactured according to the procedures outlined in our Quality Management System.

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