

## Q-Plex™ Human Cytokine Inflammation

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

### Human Cytokine Inflammation

Catalog #	Product	Markers			
110451HU	Q-Plex™ Human Cytokine - Inflammation (9-plex)	IL-1 $\alpha$ IL-6 TNF $\alpha$	IL-1 $\beta$ IL-8	IL-2 IL-10	IL-4 IFN $\gamma$

### Product Range

	Range (pg/ml)	LLD (pg/ml)	Standard* (pg/ml)
IL-1 $\alpha$	3600 - 4.9	0.27	3600
IL-1 $\beta$	9000 - 12.3	2.0	9000
IL-2	3800 - 5.2	0.72	3800
IL-4	1800 - 2.5	0.24	1800
IL-6	2700 - 3.7	0.55	2700
IL-8	2000 - 2.7	0.42	2000
IL-10	1800 - 2.5	0.30	1800
IFN $\gamma$	9200 - 12.6	1.18	9200
TNF $\alpha$	4400 - 6.0	1.36	4400

\* Actual values may vary from kit to kit. Please see the antigen card 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 50µL of sample
- ▶ Wash
- ▶ Add mix of detection antibodies specific to kit
- ▶ Wash
- ▶ Add streptavidin conjugated HRP or IR-Dye

## 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

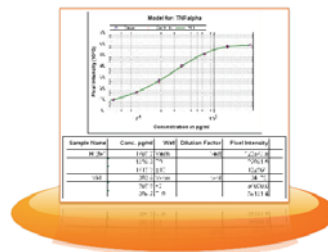
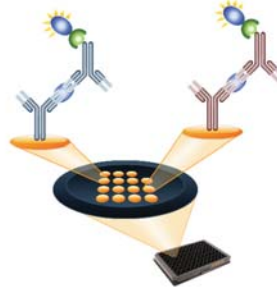
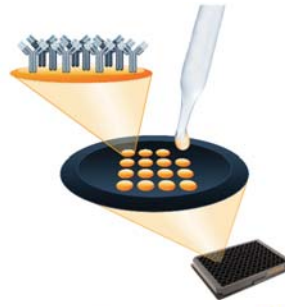
- ▶ An image of the plate is taken via a high resolution camera (Q-View Imager or approved gel doc system) or fluorescent scanner (LI-COR Odyssey)
- ▶ The image file (TIFF) is imported into Q-View Software and a Q-View Project is created

## 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 deliver or customize the exact array you need.

## Q-View™ IMAGER

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

## Q-View™ SOFTWARE

Q-View Software is a user friendly image analysis package 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 sample types from bioresearch. Increase productivity and focus on your core research while we test your samples for you.

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