

## Q-Plex™ Mouse Cytokine Inflammation

The Q-Plex™ Mouse Cytokine – Inflammation (14-plex) is a fully quantitative ELISA-based chemiluminescent assay allowing the concurrent measurement of 14 biomarkers ( IL-1 $\alpha$ , IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-6, IL-10, IL-12p70, IL-17, MCP-1, TNF $\alpha$ , MIP-1 $\alpha$ , GMCSF, RANTES).

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 fourteen distinct capture antibodies to the bottom of each well in a defined array. 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 fourteen markers in the panel within 2.5 hours. The Q-Plex™ Mouse Cytokine – Inflammation (14-plex) provides researchers an easy to use and cost effective means of generating a cytokine profile for each sample.

### Mouse Cytokine Inflammation

#### Catalog # Product

110451MS	Q-Plex™ Mouse Cytokine - Inflammation (14-plex)	IL-1 $\alpha$ IL-4 IL-17 GMCSF	IL-1 $\beta$ IL-6 MCP-1 RANTES	IL-2 IL-10 TNF $\alpha$	IL-3 IL-12p70 MIP-1 $\alpha$
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### Product Range

	Range (pg/ml)	LLD (pg/ml)	Standard* (pg/ml)
IL-1 $\alpha$	5000 - 6.9	0.89	5000
IL-1 $\beta$	13000 - 17.8	1.48	13000
IL-2	5500 - 7.5	0.34	5500
IL-3	4400 - 6.0	0.83	4400
IL-4	5000 - 6.9	0.27	5000
IL-6	5600 - 7.7	0.07	5600
IL-10	1900 - 2.6	0.84	1900
IL-12p70	7000 - 9.6	0.47	7000
IL-17	10000 - 13.7	0.70	10000
MCP - 1	4700 - 6.4	1.21	4700
TNF $\alpha$	9000 - 12.3	1.12	9000
MIP-1 $\alpha$	4800 - 6.6	0.15	4800
GMCSF	4900 - 6.7	0.33	4900
RANTES	9000 - 12.3	0.26	9000

\* 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

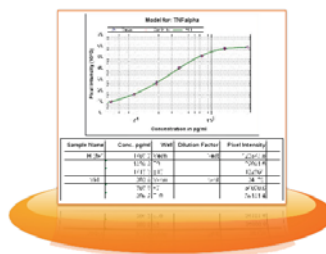
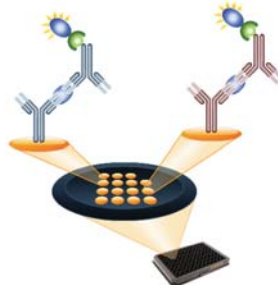
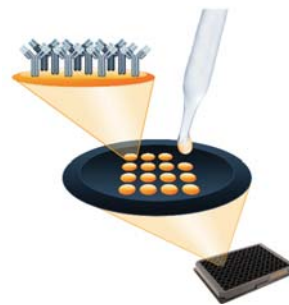
- ▶ An image of the plate is taken via a high resolution camera (Q-View Imager or approved gel doc system) or fluorescent scanner (LI-COR Odyssey)
- ▶ The image file (TIFF) is imported into Q-View Software and a Q-View Project is created

## 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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