

## Q-Plex™ Mouse Cytokine Screen IR

The Q-Plex™ Mouse Cytokine – IR (16-plex) is a fully quantitative ELISA-based Infrared (IR) assay allowing the concurrent measurement of sixteen biomarkers or analytes (IL-1 $\alpha$ , IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-10, IL-12p70, IL-17, MCP-1, IFN $\gamma$ , 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 sixteen 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 sixteen 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.

### Mouse Infrared Kits

#### Catalog # Product

120251MS	Q-Plex™ Mouse Cytokine - Screen IR (16-plex)	IL-1 $\alpha$ IL-4 IL-12p70 TNF $\alpha$	IL-1 $\beta$ IL-5 IL-17 MIP-1 $\alpha$	IL-2 IL-6 MCP-1 GMCSF	IL-3 IL-10 IFN $\gamma$ RANTES
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### Product Range

	Range (pg/ml)	LLD (pg/ml)	Standard* (pg/ml)
IL-1 $\alpha$	4600 - 6.3	0.44	4600
IL-1 $\beta$	11000 - 15.1	4.14	11000
IL-2	4400 - 6.0	2.59	4400
IL-3	3500 - 4.8	0.47	3500
IL-4	4600 - 6.3	0.79	4600
IL-5	5300 - 7.3	1.94	5300
IL-6	4300 - 5.9	0.11	4300
IL-10	3400 - 4.7	0.43	3400
IL-12p70	7300 - 10.0	0.60	7300
IL-17	8900 - 12.2	2.96	8900
MCP - 1	6000 - 8.2	5.08	6000
IFN $\gamma$	12000 - 16.5	0.43	12000
TNF $\alpha$	5500 - 7.5	0.05	5500
MIP-1 $\alpha$	2400 - 3.3	3.89	2400
GMCSF	4400 - 6.0	0.77	4400
RANTES	2800 - 3.8	0.66	2800

\* 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

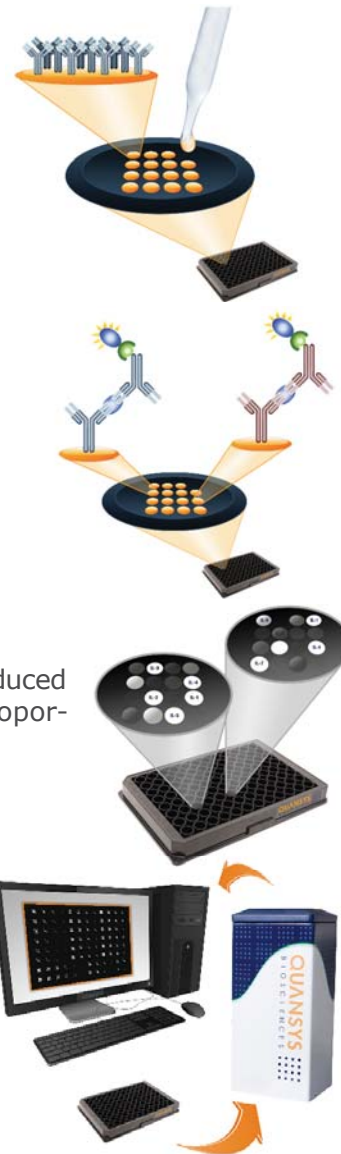
- ▶ An image of the plate is taken via a high resolution camera (Q-View Imager or approved gel doc system) or fluorescent scanner (LI-COR Odyssey)
- ▶ The image file (TIFF) is imported into Q-View Software and a Q-View Project is created

## 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.

**QUANSYS** BIOSCIENCES



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