

Q-Plex™ Human Cytokine Screen IR

The Q-Plex™ Human Cytokine – Screen IR (16-plex) is a fully quantitative ELISA-based Infrared (IR) assay allowing the concurrent measurement of sixteen biomarkers or analytes (IL-1α, IL-1β, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12p70, IL-13, IL-15, IL-17, IFNγ, MCP-1, TNFα, TNF).

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 µl 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.

Human Infrared Kit

Catalog #	Product	Markers			
130951HU	Q-Plex™ Human Cytokine - Screen IR (16-plex)	IL-1α IL-5 IL-12p70 IFNγ	IL-1β IL-6 IL-13 MCP-1	IL-2 IL-8 IL-15 TNFα	IL-4 IL-10 IL-17 TNFβ

Product Range

	Range (pg/ml)	LLD (pg/ml)	Standard* (pg/ml)
IL-1α	7600 - 10.4	4.59	7600
IL-1β	4700 - 6.4	0.10	4700
IL-2	2700 - 3.7	1.35	2700
IL-4	415 - 0.6	0.22	415
IL-5	2000 - 2.7	1.47	2000
IL-6	3700 - 5.1	1.89	3700
IL-8	1800 - 2.5	2.40	1800
IL-10	2500 - 3.4	0.10	2500
IL-12	7100 - 9.7	7.08	7100
IL-13	4400 - 6.0	0.33	4400
IL-15	5800 - 8.0	6.26	5800
IL-17	5800 - 8.0	7.42	5800
IFNγ	13000 - 17.8	3.06	13000
MCP - 1	1700 - 2.3	2.28	1700
TNFα	4500 - 6.2	3.27	4500
TNFβ	10000 - 13.7	9.93	10000

* 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

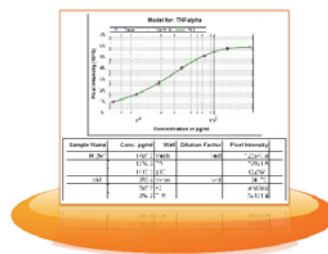
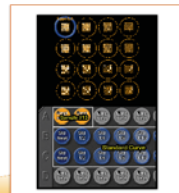
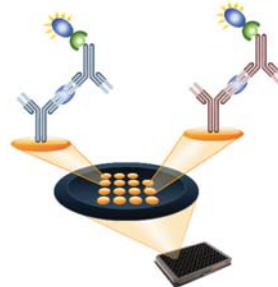
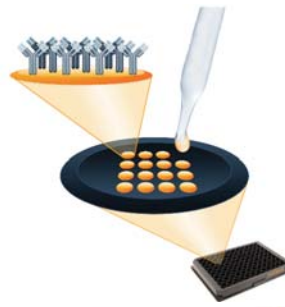
- ▶ An image of the plate is taken via a high resolution camera (Q-View Imager or approved gel doc system) or fluorescent scanner (LI-COR Odyssey)
- ▶ The image file (TIFF) is imported into Q-View Software and a Q-View Project is created

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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