

Empowering Proteomics

RayBio® Antibody Arrays & ELISA Kits

Following the completion of the human genome sequence, researchers have been able to analyze the expression of a myriad of disease-related genes. However, many diseases result from abnormal protein expression, post-translational modification or interaction with other biomolecules.

To address the need for efficient, high-throughput protein analysis our partner RayBiotech has developed hundreds of antibody arrays and immunoassays for the efficient analysis of proteins involved in inflammation, angiogenesis, apoptosis, cell growth and signal transduction.

The products are designed for the measurement of cytokines, chemokines, growth factors, phosphorylated targets, immunoglobulins and other immunological markers in a variety of species. They provide a fast, sensitive and economical method to determine protein levels in different sample types including serum, plasma, urine, cell culture supernatants as well as cell and tissue lysates.

www.biocat.com/raybio

Validation of Antibody Array Results

ELISA kits are an excellent tool for follow up/confirmation of antibody array data. The identical antibody pairs and corresponding targets used for the RayBio® C- and G-series Cytokine Antibody Arrays and for the Quantibody® Cytokine Arrays, see reverse page, are contained in the matching RayBio® ELISA Kits.

Quantibody® Mouse Cytokine Array Q1

Cat# QAM-CYT-1-RB

| | | | | |
|-----------|---------------|---------------|--------------|--------|
| GM-CSF | IFN- γ | IL-1 α | IL-1 β | IL-10 |
| IL-12 p70 | IL-13 | IL-17A | IL-2 | IL-3 |
| IL-4 | IL-5 | IL-6 | IL-9 | KC |
| MCP-1 | M-CSF | RANTES | TNF α | VEGF-A |

Mouse GM-CSF ELISA

Cat# ELM-GMCSF-1-RB

Mouse IL-5 ELISA

Cat# ELM-IL5-1-RB

Mouse TNF-alpha ELISA

Cat# ELM-TNFa-1-RB

RayBio® Antibody Arrays & ELISA Kits

Antibody Arrays

- Protein expression profiling
- High sensitivity - as low as pg/ml
- More data, less sample
- >700 antibody arrays
- Membrane and glass slide format

Many biological processes such as apoptosis, inflammation, angiogenesis, immune response and migration often accompany changes of cytokine expression levels. Because of the extensive cross-talk between cytokines, a complete analysis of biological responses and functions must be obtained through multiplex assays. Antibody arrays allow a much broader view of protein activity than can be obtained with single-target ELISAs and Western Blots. Moreover, antibody array screening improves the chances for discovering key factors, disease mechanisms or biomarkers related to cytokine signaling.

A variety of antibody arrays developed by RayBiotech is provided: You can profile up to 1000 proteins on a single array using high-density (L-series) antibody arrays and direct biotin labeling of proteins. Using multiplex sandwich ELISA-based methodology (C- and G-series antibody arrays) enables you to analyze up to 274 cytokines in one experiment. With Quantibody® Cytokine Arrays you can simultaneously quantify up to 440 cytokines with similar sensitivity as ELISA.

Quantibody® Cytokine Arrays also feature the sandwich immunoassay principle. Cytokine standards are provided with the array for calculation of target protein concentrations. Advantages of the Quantibody® Cytokine Arrays are lower sample consumption, wider dynamic range (up to 5 orders of magnitude) and low background.

ELISA Kits

- Protein quantification
- High sensitivity and specificity
- High reproducibility and broad linear range
- >3000 target analytes covering 14 different species
- >3000 literature citations

ELISA kits are *in vitro* enzyme-linked immunosorbent assays routinely used for the quantitative measurement of cytokines, chemokines, growth factors, phosphorylated targets, immunoglobulins and other immunological markers in a variety of species. They offer a fast, sensitive and economical method to quantify protein levels in samples including serum, plasma, urine, cell culture supernatants as well as cell and tissue lysates.

ELISAs have proven to be valuable tools in drug development as they are commonly used for biomarker profiling of disease vs. normal states and for toxicity profiling.

The ELISA kits developed by RayBiotech are rigorously tested and validated for exceptional reproducibility.

Our extensive ELISA selection includes:

| | |
|------------------------|-----------------------------|
| Cytokines | Growth Factors |
| Immune System Antigens | Blood Proteins |
| Endocrine Markers | Acute Kidney Injury Markers |
| Soluble Receptors | Phosphorylated Targets |

To find the ELISA kit of your interest, please use the ELISA search tool at www.biocat.com/elisa

RayBio® Antibody Arrays

| | C-Series | G-Series | L-Series | Quantibody® |
|--------------------|--|-------------------|------------------------------------|----------------|
| Signal Output | Chemiluminescent | Fluorescent | Chemiluminescent or fluorescent | Fluorescent |
| Equipment required | CCD, X-ray, gel doc | Laser scanner | CCD, X-ray, gel doc, laser scanner | Laser scanner |
| Results | Semi-quantitative | Semi-quantitative | Semi-quantitative | Quantitative |
| Design Principle | Sandwich-based | Sandwich-based | Label-based | Sandwich-based |
| Solid Support | Membrane | Glass slide | Membrane or glass slide | Glass slide |
| Number of Targets | 10-274 | 10-274 | 90-1000 | 10-440 |
| Volume | 1000 µl | 50-100 µl | 20-100 µl | 50-100 µl |
| Sample Types | Body fluids, tissue culture media, cell and tissue lysates | | | |

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