**R&D Systems** Tools for Cell Biology Research™

NEW!

# Proteome Profiler™ *96* Antibody Arrays

## Simultaneously Detect the Relative Levels of Multiple Proteins in a Single Sample

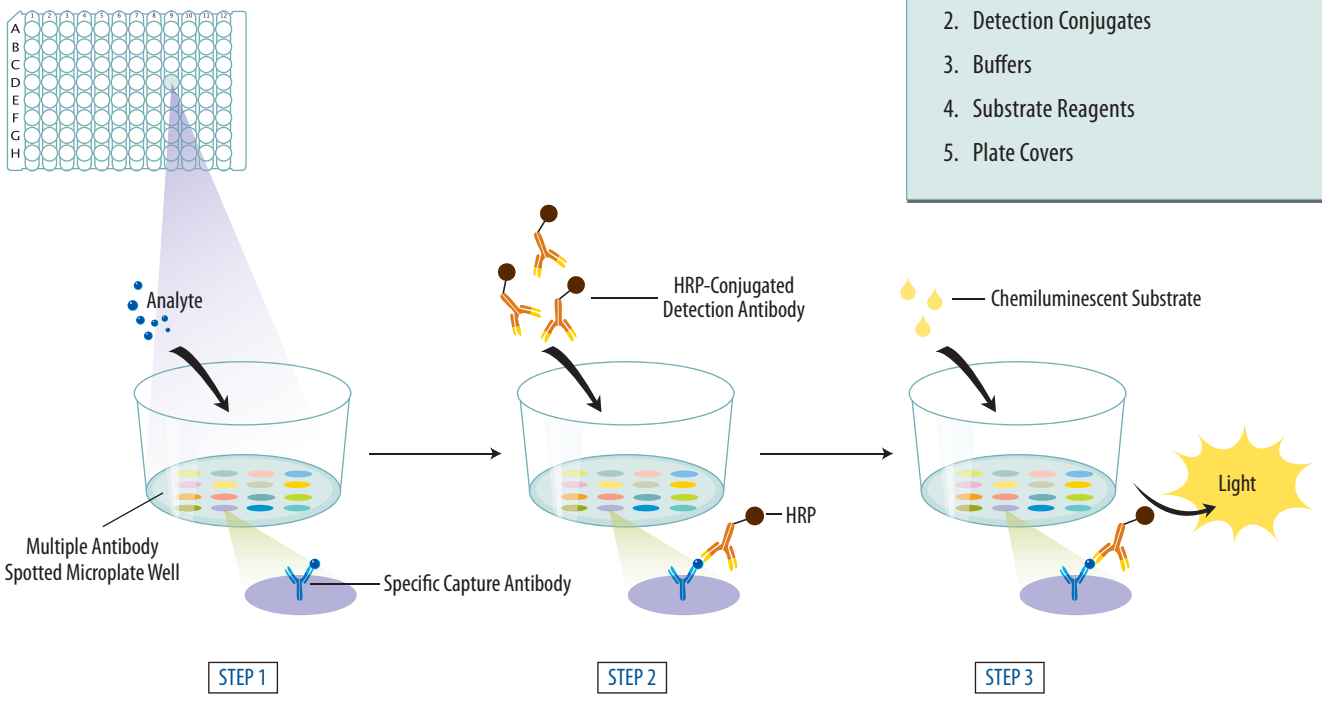
- ✓ Detect up to 16 analytes in a single sample – Eliminates the need to perform multiple IP/Western blot experiments
- ✓ Data can be collected in 3.5 hours – Rapid Results
- ✓ Standard microplate format – Suitable for high-throughput analysis using small sample sizes
- ✓ 96 tests per kit – Ideal for large-scale studies on a focused selection of proteins
- ✓ Utilizes carefully selected capture antibodies for each protein – Ensures specificity and sensitivity
- ✓ Free software is available to analyze the pixel density of individual spots in each well

## Assay Principle

Proteome Profiler *96* Microplate-based Antibody Arrays consist of a 96-well microplate pre-spotted with a series of capture antibodies in each well. Experimental samples are added to the wells and target proteins present in the samples bind to the immobilized antibodies (Step 1). A cocktail of biotinylated detection antibodies and Streptavidin-HRP or an HRP-conjugated pan anti-Phospho-Tyrosine antibody is subsequently used to detect the bound proteins (Step 2). Chemiluminescent substrate reagents produce a signal that is proportional to the amount of analyte bound (Step 3). A camera imaging system capable of chemiluminescent detection is used to determine the intensity of light emitted from individual spots.

### Kit Components

1. 96-well Microplate Array with each well spotted with up to 16 capture antibodies
2. Detection Conjugates
3. Buffers
4. Substrate Reagents
5. Plate Covers



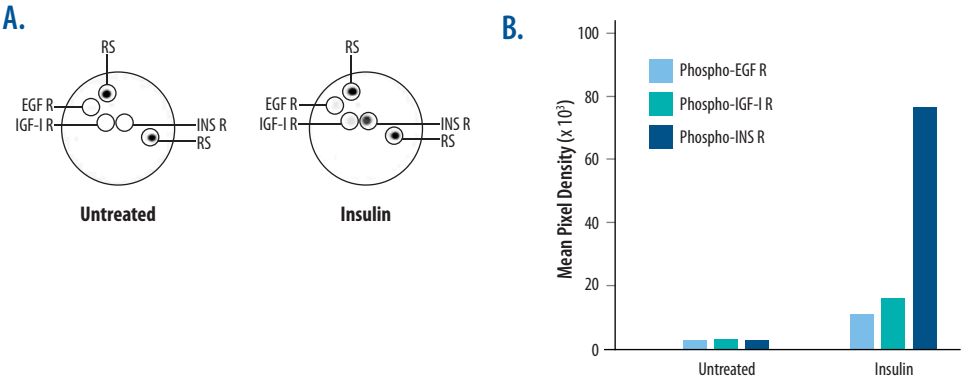
# Proteome Profiler *96* Microplate-based Antibody Array Kits

| PRODUCT | DESCRIPTION | CATALOG # |
|---|---|---|
| **Human Phospho-RTK Array Kit 1** | | |
| Contains a 96-well microplate- each well spotted with 16 different RTK antibodies | | ARZ001 |
| **Analytes:** EGF R, ErbB2, ErbB3, ErbB4, HGF R, IGF-I R, Insulin R, M-CSF R, MSP R, PDGF Rα, PDGF Rβ, SCF R, Tie-2, VEGF R1, VEGF R2, VEGF R3 | | |
| **Human Phospho-RTK Array Kit 2** | | |
| Contains a 96-well microplate- each well spotted with 8 different breast cancer-related RTK antibodies | | ARZ002 |
| **Analytes:** EGF R, EphB4, ErbB2, ErbB3, ErbB4, HGF R, IGF-I R, MSP R | | |
| **Human Phospho-RTK Array Kit 3** | | |
| Contains a 96-well microplate- each well spotted with 8 different angiogenesis-related RTK antibodies | | ARZ003 |
| **Analytes:** PDGF Rα, PDGF Rβ,Tie-1, Tie-2, VEGF R1, VEGF R2, VEGF R3, EphB4 | | |

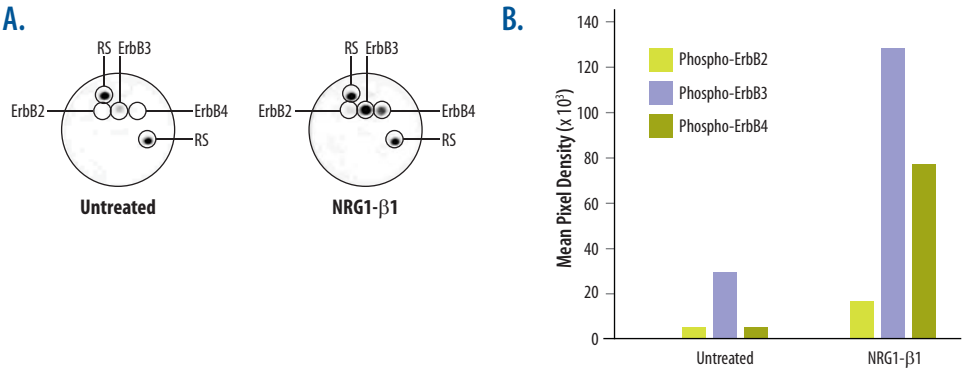
| | |
|---|---|
| **Format** | Pre-spotted 96-well Microplate |
| **Number of tests** | 96 |
| **Number of analytes** | Up to 16 |
| **Sample Size** | 5 - 25 µg of Cell Lysate |
| **Assay length** | 3.5 hours |
| **Detection System** | Chemiluminescence |
| **Data Acquisition** | Camera Imaging System* |
| **Amenable to automation** | Yes |

* Suitable imaging systems include Quansys Biosciences Q-View™ Imager; Alpha Innotech HD2 and FC2; BioRad Versa Doc 4000 and XRS; Fujifilm LAS-3000 and LAS-3000 Mini. Free analytical software is available from Quansys Biosciences.

# Analyte Detection using the Proteome Profiler *96* Microplate-based Antibody Arrays




**Detection of Insulin-induced Receptor Tyrosine Kinase Phosphorylation using the Proteome Profiler *96* Phospho-RTK Antibody Array 1. A.** The Proteome Profiler *96* Human Phospho-RTK Antibody Array 1 (Catalog # ARZ001) was used to simultaneously assess the phosphorylation of 16 different receptor tyrosine kinases in lysates from HepG2 human hepatocellular liver carcinoma cells that were either untreated or treated with insulin for 5 minutes. Images of the wells are shown. RS=Reference Spot. **B.** Histogram profiles for select proteins were generated by quantifying the mean spot pixel densities from individual antibody spots using analytical software.




**NRG1-β1 Induces Phosphorylation of ErbB Family Receptors in Breast Cancer Cells. A.** Cell lysates prepared from MDA-MB-453 human breast cancer cells, untreated or treated with recombinant human NRG1-β1 (Catalog # 396-HB) for 5 minutes, were assessed for the phosphorylation of 16 different receptor tyrosine kinases using the Proteome Profiler *96* Human Phospho-RTK Antibody Array 1 (Catalog # ARZ001). Images of the wells are shown. RS=Reference Spot. **B.** Histogram profiles for receptor tyrosine kinases exhibiting significant phosphorylation were generated by quantifying the mean spot pixel densities from individual antibody spots using analytical software.

**For more information visit our website at www.RnDSystems.com/go/MultiplexAssays**

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