Mercator™ PhosphoArray
Simultaneously Measure 8 Phospho-proteins!


This unique technology answers all of your questions!
The BioSource Mercator™ PhosphoArray is a pre-coated glass slide, which utilizes a patented technology for coating proteins. These slides allow simultaneous multiplexing of phospho-proteins with minimal use of sample and exquisite reproducibility. The use of in-house manufactured, highly specific phospho- and pan antibodies, as well as recombinant protein standards, allows the generation of accurate and quantitative measurement.

Mercator™ PhosphoArray Features
• Simultaneously measure 8 Phospho-proteins
• Rapid results in 5 hours
• Quantitative assay based on antibody capture technology
• Compatible with most glass slide array readers
• High precision (CV’s <8%)
• High specificity – no ‘cross-talk’

Mercator™ PhosphoArray Includes*
• 8-plex slide(s) – pre-coated with monoclonal capture antibody
• Phospho-specific detector antibody
• Secondary antibody fluorescent conjugate
• Blocking solution

Benefits
• Measure multiple pathways in a single sample
• Quickly identify proteins of interest
• Proven technology
• Easily adapted, proteomics approach
• Accurate results
• Reliable results

How the Mercator™ PhosphoArray Works

Incubate slide in Blocking Buffer for 15 minutes while shaking
Decant
Add Standards and samples. Cover and shake for 3 hours at RT or overnight at 4°C
Decant and wash 5x
Incubate with Detector Antibody
Cover and shake for 1 hour
Decant and wash 5x
Incubate with Secondary Antibody Conjugate
Cover and shake for 45 minutes in the dark
Decant and wash 5x
Incubate in H2O and dry
Read in glass scanner (5 minutes)

Mercator™ PhosphoArray I

<table>
<thead>
<tr>
<th>Description</th>
<th>Test Size</th>
<th>Catalog #</th>
<th>Price ($)</th>
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</thead>
<tbody>
<tr>
<td>Phospho 4-Slide Kit*</td>
<td>512</td>
<td>BHM9024</td>
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<tr>
<td>Phospho Single Slide Kit*</td>
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<td>4-Slide Holder (reusable)</td>
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<td>1-Slide Holder (reusable)</td>
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*Slide kit does not include slide holders

*The fluorophore has an excitation peak of 652nm and an emission peak of 673nm. Individual settings will vary depending on the instrument (i.e., Axon and PE scanners use a laser that excites at 635nm and one can use an emission filter that only collects light at 655-695nm.)

Developed in collaboration with the Cell Migration Consortium.

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Explore Cytokines & Cellular Pathways
**Mercator™ PhosphoArray**

**Mercator™ PhosphoArray Validation**

A panel of rigorous quality control tests have been conducted on each lot of Mercator™ PhosphoArray slides to ensure high sensitivity, specificity, reproducibility, consistency to single plex results, and comparability to other methods.

**Mercator™ PhosphoArray Specificity**

**ATF2**

Specific Antigen Binding - Arrayed ATF2

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**Akt**

Specific Antigen Binding - Arrayed AKT Aβ

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**Comparison of Recombinant Phospho-protein in a Single Plex or Multiplex Format.**

Phosphorylation of the 8-plex recombinant phosphoprotein markers as a single plex (one standard at a time) or a multiplex (with all 8 recombinant phosphoproteins) were evaluated. Data of a single plex or multiplex for the phosphorylated AKT and ATF2 are shown to illustrate the high selectivity of each antibody pair for the target of interest.

**Mercator™ PhosphoArray Reproducibility**

Data below shows the average of multiple replicates and the calculated coefficient of variation. Low CVs indicate results will be consistent and reliable over time.

<table>
<thead>
<tr>
<th>Lysate Conc. (µg/mL)</th>
<th>Replicate Average</th>
<th>% CV</th>
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<tbody>
<tr>
<td>100</td>
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<td>0.0064</td>
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**Mercator™ PhosphoArray Sensitivity**

The sensitivity of the Mercator™ PhosphoArray is determined for each individual phospho-protein. This assay format provides high sensitivity (e.g., compare barely detectable differences by Western blot to statistically significant and quantitative results by Mercator™ PhosphoArray shown below.)

**Mercator™ PhosphoArray Scanning Service**

No scanner available? BioSource has a solution for you. The fluorophore used for detection is highly stable. This allows BioSource to offer a scanning service for reading your completed assays.

Please inquire for more information.
Phone 800-242-0607 or tech.support@biosource.com

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