New!

Mercator™ PhosphoArray

Simultaneously Measure 8 Phospho-proteins!

EGFR [pY1068] • FAK [pY397] • Src [pY418] • Paxillin [pY118]
Akt [pS473] • p38 [pTpY180/182] • HSP27 [pS82] • ATF2 [pTpT69/71]

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.

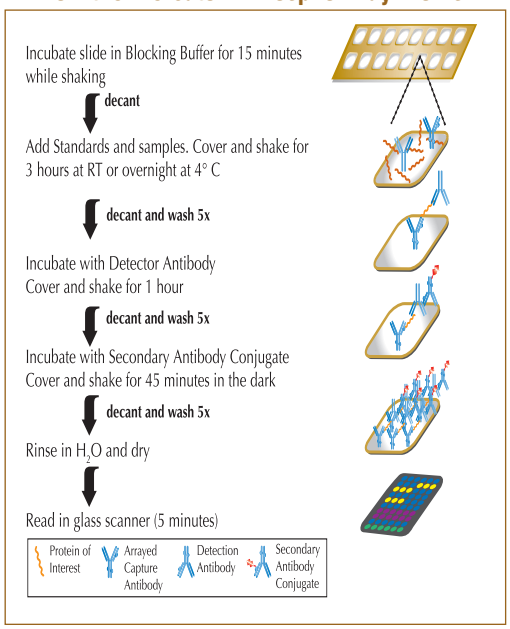
Mercator™ PhosphoArray Features

- 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'

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



**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.)*

Mercator™ PhosphoArray Includes*

- 8-plex slide(s) – pre-coated with monoclonal capture antibody
- Phospho-specific detector antibody
- Secondary antibody fluorescent conjugate
- Blocking solution
- Wash solution
- Chambers
- Pre-combined 8-plex recombinant standard
- Detailed protocol

* *Slide holders sold separately*

Mercator™ PhosphoArray I

Description	Test Size	Catalog #	Price ($)
Phospho 4-Slide Kit*	512	BHM9024	995
Phospho Single Slide Kit*	128	BHM9021	295
4-Slide Holder (reusable)		BHM0004	125
1-Slide Holder (reusable)		BHM0001	65

**Slide kit does not include slide holders*

Developed in collaboration with the Cell Migration Consortium.

For research use only.

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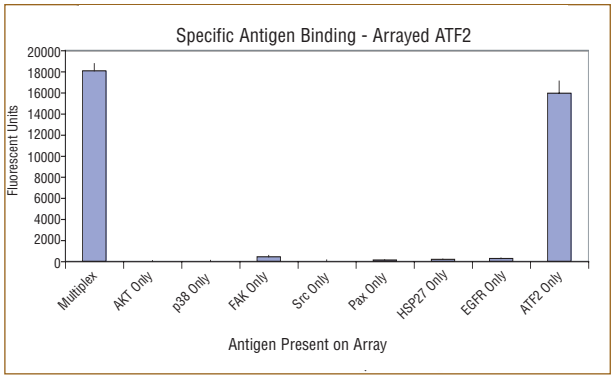
Mercator™ PhosphoArray

Mercator™ PhosphoArray Validation

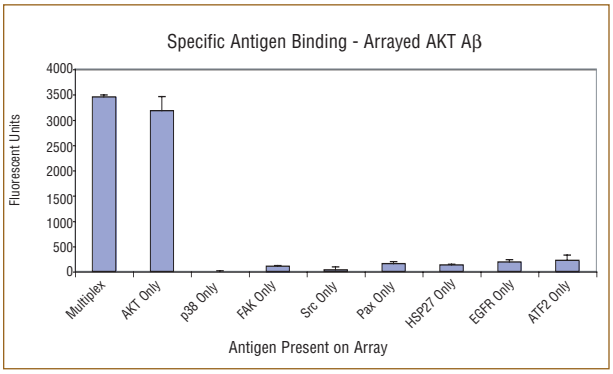
A panel of rigorous quality control tests have been conducted on each lot of Mercator™ PhosphoArray slides to ensure high sensitivity, specificity, reproducibility, consistency to single plex results, and comparability to other methods.

Mercator™ PhosphoArray Specificity

ATF2



Akt



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 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

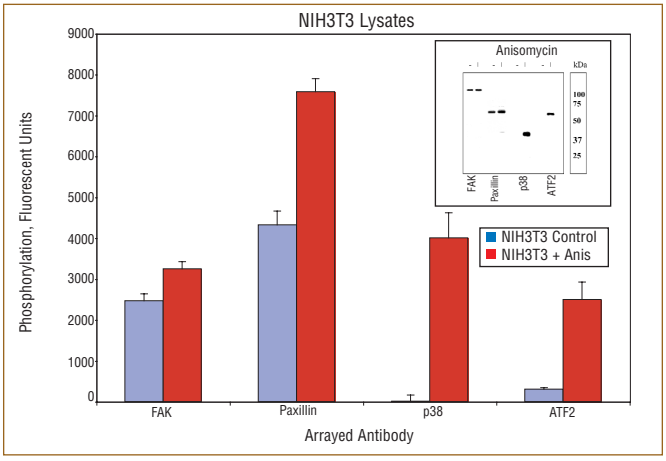
Mercator™ PhosphoArray Reproducibility

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.

Lysate Conc. (µg/mL)	Replicate Average	% CV
100	56334	1
20	45623	2
4	25743	3
0.8	9676	4
0.16	5159	2
0.032	4861	2
0.0064	3893	6

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.)



Comparison analysis of phosphorylation for multiple markers using Mercator™ PhosphoArray and Western blotting in NIH3T3 cells in response to Anisomycin (stress stimulation).

Phosphorylation of a subset of the 8-plex markers (FAK, Paxillin, p38 and ATF2) were analyzed by Mercator™ PhosphoArray in crude lysates prepared from NIH3T3 cells, left untreated (Blue bars) or treated with Anisomycin (100 ng/mL, 1h) (Red bars) (see histogram). For comparison, Western analysis using individual phospho-specific antibodies for these markers on the same cell lysates is also shown.

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