

FAST® Slides

*The World's Premier
Protein Arraying Surface*

Whatman FAST Slides are the world's leading surface for protein microarray applications. Our proprietary 3-D nitrocellulose coated slides create a 3-D surface.

FAST SLIDES FEATURES:

- Superior protein binding capacity and reproducibility
- Highest sensitivity and dynamic range
- Excellent long-term stability of printed proteins
- Compatible with all detection methodologies
- Compatible with commercially available arraying robots

The nitrocellulose coating binds proteins in a non-covalent and irreversible manner and can be probed using the same method as in traditional blots. The FAST Slide's glass surface features a matrix that retains arrayed proteins in near-quantitative fashion, resulting in unparalleled sensitivity down to antigen concentrations of 1 pg/mL. When arrayed in the Arraying Buffer, proteins retain binding potential for over 800 days. FAST Slides are compatible with fluorescent, chemiluminescent or radiographic detection systems and commercially available arraying robots.

FAST Slides are suitable for many types of protein microarrays. When compared to traditional ELISAs and Westerns, FAST Slides require a smaller sample and have better sensitivity, linearity and quantitation. In addition, thousands of antibodies or samples can be screened simultaneously.



FAST PAK Protein Array Kits

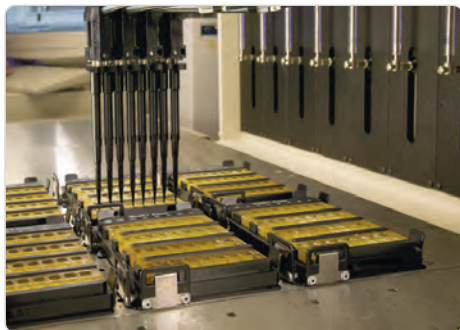
FAST PAK Protein Array Kits feature everything a researcher needs to build and process protein microarrays. They are available for 1-, 2-, 8-, or 16-pad FAST Slides. Our proprietary protein array blocking buffer ensures stability, optimum signal-to-noise ratios and promotes specific binding. Kits include Protein Arraying Buffer, Protein Array Blocking Buffer, Protein Array Wash Buffer, Incubation Chambers and Chamber Covers.



FAST PAK Protein Array Kit

Incubation Chambers

Incubation Chambers are ideal for carrying out binding reactions for FAST Slides. They feature a secure silicone gasket design and are recommended for use at room temperature and elevated incubation temperatures, up to 76° C.



Secure Gasket



Incubation Chambers

Slide Holders

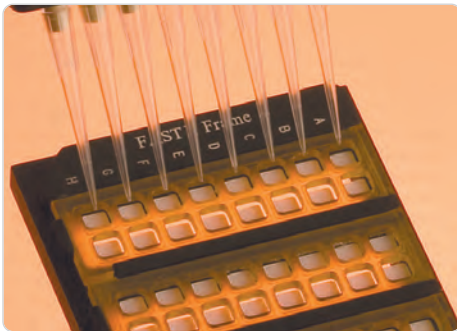
FAST Frame Multi-Slide Plate

The FAST Frame multi-slide plate is designed to hold four, 16-pad FAST Slides and the corresponding multi-well Incubation Chambers in a microplate footprint for high throughput processing of microarrays. The footprint dimensions meet the Society for Biomolecular Screening standards.

The 96-well spacing (9 mm center to center) of the array pads on FAST Slides makes the loaded FAST Frame compatible with automated liquid handling systems and 8-channel manual pipettors.

Each plate processes up to 64 arrays simultaneously. The rows and columns on each plate are labeled for easy indexing and sample application.

The FAST Frame Multi-Slide Plate is constructed of autoclavable plastic and is compatible with standard 1" x 3" glass slides when used with Whatman reusable silicone chambers (1, 2 or 16). The FAST Frame is available as a stand-alone unit or as a starter kit containing 16-pad FAST Slides, Incubation Chambers and Chamber Covers.



FAST Frame Multi-Slide Plate



FAST Frame

Chip Clip™

The Chip Clip is a single grip slide holder that securely holds one FAST Slide and Incubation Chamber for processing multiple arrays simultaneously. Used in conjunction with Whatman silicone Incubation Chambers, the Chip Clip ensures leak-proof barriers around the arrayed pads on the slide.

The slide and Incubation Chamber are easily inserted into and removed from the Chip Clip slide holder. Side rails hold the chamber firmly against the slide surface. The Chip Clip is compatible with 25 x 76 mm (1" x 3") slides when used with Incubation Chambers.



Chip Clip

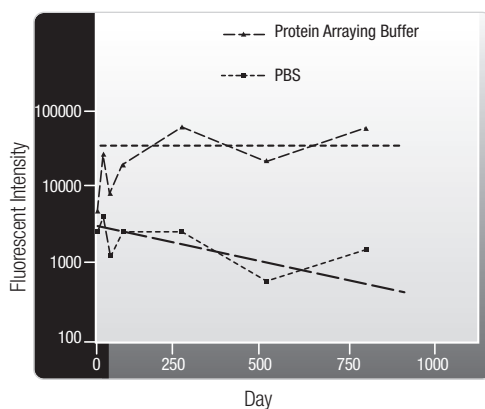
Protein Array Reagents

Optimized Reagents for Protein Microarrays

Protein Arraying Buffer

The Protein Arraying Buffer offers increased long-term protein stability and molecular recognition activity coupled with a superior fluorescent signal from the arrayed sample.

Increased Stability with Superior Signal Influence of Buffer on Antibody Array Shelf Life



Increased Stability with Superior Signal: A monoclonal antibody to creatine kinase (0.1 mg/mL) was arrayed in either PBS or Protein Arraying Buffer using split pins. Cy⁵ labeled creatine kinase in solution was detected at the indicated time points. The graph demonstrates the increased stability of antibodies spotted in the Protein Arraying Buffer through 771 days.

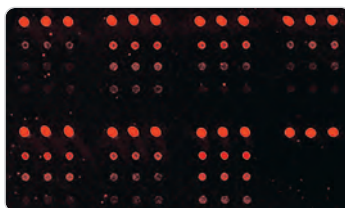


Protein Array Buffer

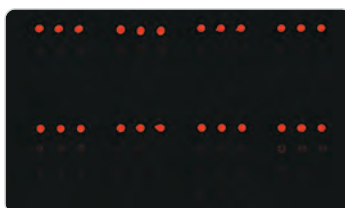
Protein Array Blocking Buffer

The Protein Array Blocking Buffer offers superior blocking capabilities and signal to noise ratio. The Blocking Buffer has a strong reduction of non-specific antibody-antibody interactions coupled with minimal effects on specific antibody-antigen interactions.

Superior Blocking Capabilities



A. Blocking with TBS Tween 20[®]



B. Blocking with Protein Array Blocking Buffer

Reduction of non-specific protein-protein interaction: Monoclonal capture antibodies were arrayed on FAST Slides and probed with an antibody cocktail consisting of 16 biotinylated polyclonal antibodies followed by Streptavidin-Cy⁵ detection. Images were taken at identical laser/PMT setting. The first row of each array field (3 columns x 4 rows) is a positive detection control.

- A. Non-specific binding of biotinylated antibodies using standard TBS Tween 20, 0.1%.
- B. Reduction of non-specific antibody-antibody interactions by the Protein Array Blocking Buffer.

Protein Array Wash Buffer

The Protein Array Wash Buffer is optimized for efficient washing of protein microarrays to ensure optimum results. Supplied as 10x concentration, it is used in FAST PAK, FAST Quant and the Serum Biomarker Chip kits.

MicroCaster™

Manual Microarraying System

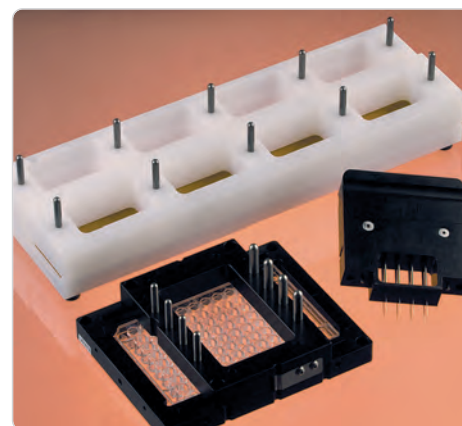
The MicroCaster is an economical entry-level system for proof of principle and pilot studies. With the MicroCaster eight-pin hand tool, samples can be loaded for 96 well and 384 well microtiter plates. The MicroCaster slide holder holds two slides. It has a processing time of 5 to 25 minutes per slide and the indexing system enables precise printing of up to 768 spots in an array of 32 x 24 spots. It is easy to set up and use and has good reproducibility of spots.



MicroCaster

Accessories

MicroCaster accessories increase the flexibility of the handheld arraying system and provide accurate source-plate indexing and reliable pin-tool cleaning.



Ordering Information

FAST Slides				
Description	# of Pads	Size of Individual Pads	Qty/Pkg	Item #
FAST Slides	1	20 x 51 mm	20	10484182
FAST Slides	1	20 x 60 mm	20	10485332
FAST Slide 2	2	20 x 20 mm	10	10485317
FAST Slide 8	8	6 x 6 mm	10	10485320
FAST Slide 16	16	6 x 6 mm	10	10485323

FAST PAK Protein Array Kits		
Description	Slide Configuration	Item #
FAST PAK	1-pad	10485262
FAST PAK 2	2-pad	10485319
FAST PAK 8	8-pad	10485322
FAST PAK 16	16-pad	10485325

Content: 10 Slides, 10 Incubation Chambers, 40 Chamber Covers, 10 mL Protein Arraying Buffer (2x), 15 mL Blocking Buffer (1x), 125 mL Wash Buffer (10x)

Protein Array Incubation Chambers			
Description	Size	Qty/Pkg	Item #
Single-well Incubation Chambers	fits 1-pad FAST Slides	10	10486137
Dual-well Incubation Chambers	fits 2-pad FAST Slides	10	10486087
16-well Incubation Chambers	fits 8- & 16-pad FAST Slides	10	10486046
Chamber Covers	optional, for all Slides	40	10485336

Slide Holders — to hold slides and Incubation Chambers			
Description		Qty/Pkg	Item #
FAST Frame Multi-Slide Plate - holds up to 4 FAST Slides		1	10486001
FAST Frame Starter Kit Includes		1	10486003
FAST Frame		1	
16-pad FAST Slides		10	
16-well Incubation Chambers		10	
Chamber Covers		10	
Chip Clip Slide Holder — holds 1 FAST Slide		1	10486081

Protein Array Reagents		
Description	Qty/Pkg	Item #
Protein Arraying Buffer (2x)	4 x 10 mL	10485331
Protein Array Blocking Buffer (1x)	1 x 100 mL	10485356
Protein Array Wash Buffer (10x)	4 x 125 mL	10485330

MicroCaster		
Description	Qty/Pkg	Item #
MicroCaster System	1	10 485 047
MicroCaster Pin Conditioner	100 mL	10 485 061
MicroCaster Replacement Pin	1	10 485 326
MicroCaster Pad (pin support pad)	1	10 485 370

MicroCaster Accessories			
Description	Size	Qty/Pkg	Item #
Lint free blotting paper	80 x 115 mm	10 pack	10 486 042
Wash and blot station	1 pack	1	10 486 043
96-well microplate indexer	1 pack	1	10 486 044

Whatman Quality

Whatman is a global leader in separations technology and is known in the scientific community for providing Innovative Life Science products and solutions. Our instinct for simplification accelerates the rate of discovery, reduces costs and saves time. For more information, visit www.whatman.com

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