

MSD[®] Standard and High Bind Plates



Ordering Information

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Company Address

MESO SCALE DISCOVERY[®]
A division of
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www.mesoscale.com[®]

96-Well SECTOR[®] Plates, Catalog Numbers (for use with SECTOR Imager 2400 (SI 2400), SECTOR Imager 6000 (SI 6000), and MESO [™] QuickPlex SQ 120 instruments)	Standard	L15XA
	High Bind	L15XB
	Small Spot Standard	L45XA
	Small Spot High Bind	L45XB
384-Well SECTOR Plates, Catalog Numbers (for use with SI 2400 or SI 6000 instruments)	Standard (SI 2400 only)	L25XA
	High Bind (SI 2400 only)	L25XB
	Standard (SI 6000 only)	L21XA
	High Bind (SI 6000 only)	L21XB
96-Well QUICKPLEX[®] Plates, Catalog Numbers (for use with MESO QuickPlex SQ 120 instrument)	Standard	L55XA
	High Bind	L55XB
Storage	Room temperature (18–25°C) After opening the plate package, we recommend storing unused plates sealed in the original packaging to prevent exposure to dust and contaminants. The plate expiration date is indicated on the product label.	

Summary and Intended Use

MSD's uncoated MULTI-ARRAY[®] plates provide a rapid and convenient method for the development of new assays and the transfer of existing immunoassays to the MSD platform. This insert provides instructions on coating MSD Standard and High Bind plates. **Important:** Please refer to the detailed product insert on MSD Standard and High Bind Plates available at www.mesoscale.com for comprehensive instructions and guidance on using uncoated plates.

Safety

Use safe laboratory practices and wear gloves, safety glasses, and lab coats when handling controls. Handle and dispose of all hazardous samples properly in accordance with local, state, and federal guidelines. Product-specific safety information is available in the safety data sheet (SDS), which can be obtained from MSD Customer Service.

Plate Surface Types

MSD provides 96-well and 384-well plates with two surface types: High Bind plates have a hydrophilic surface; and Standard plates have a hydrophobic surface. A combination of working electrode size and surface type determines the capacity of capture reagent that can be coated on the plate.

When coating MSD plates, it is necessary to take the binding capacity of the plate into consideration. The table below indicates the binding capacity of the different plate types. It was measured using IgG as the capture reagent and SULFO-TAG[™]-conjugated protein AG as the reporter. These values may vary for non-IgG proteins. Standard plates tend to offer higher sensitivity while high-bind plates can facilitate the quantification of analytes at higher concentrations.

Plate Type	Surface Type	Binding Capacity (IgG)		
		96-well, 1 Spot	96-well, Small Spot	384-well, 1 spot
Standard Plate	Hydrophobic	1.0 pmole/well	0.25 pmole/well	0.2 pmole/well
High Bind Plate	Hydrophilic	5.0 pmole/well	1.25 pmole/well	1.0 pmole/well

Plate Coating Protocol

A variety of capture reagents including antibodies, peptides, antigens, carbohydrates, lysates, cells, membranes, and virus-like particles can be directly immobilized on MSD Standard and High Bind plates. Either of the following methods may be used:

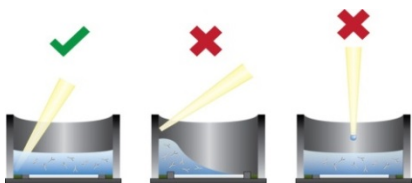
- **Solution Coating:** This technique is similar to the way ELISA plates are coated.
- **Spot Coating:** This method coats the working electrode only, conserving capture antibody.

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Not for use in
diagnostic procedures.

MSD Assay Development Products

Solution coating protocol

The protocol for solution coating is the same for Standard and High Bind plates. The recommended coating concentration range for solution coating antibodies is 1–20 µg/mL.

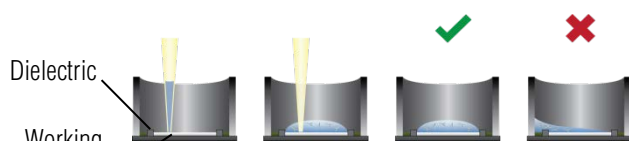


Add the diluted antibody directly to the bottom corner of each well. Tap plate gently or shake for 5 to 10 minutes. Incubate.

Plate Type	Coating Volume/Well	Coating Buffer	Incubation Time
96-well Plate	25–40 µL	PBS	Overnight at 2–8°C, sealed
384-well Plate	15–25 µL		

Spot Coating Protocol

Standard and High Bind plates use different coating buffers for spot coating due to their different surface hydrophobicity. Standard plates require some surfactant in the coating buffer to allow the solution to spread and cover the working electrode. The coating and incubation parameters for the different plate types are provided in the table below. The recommended coating concentration range for spot coating antibodies is 4–40 µg/mL.



Touch pipette tip to working electrode. Dispense fluid while touching the electrode. Fluid should spread to the edge of the spot and form a dome over the electrode. Fluid should not breach past the dielectric to the edge of the well.

Plate Type	Coating Volume/Well	Coating Buffer	Incubation Time
96-well Standard	5 µL	PBS + 0.03% Triton X-100	Overnight without sealing
96-well, Small Spot Standard	1 µL		
384-well Standard	1 µL		
96-well High Bind	5 µL	PBS	1 hour with plate sealed, or overnight without sealing
96-well, Small Spot High Bind	1 µL		
384-well High Bind	1 µL		

Related Products

MSD offers a variety of assay development plates and reagents including blockers, secondary reporters, and diluents. A complete list of these products and information about them is available at www.mesoscale.com.

Reagents	Catalog #	Description
ELISA Conversion Pack I	K15A01-1	Uncoated plates for immobilizing unlabeled capture antibodies
ELISA Conversion Pack II	K15A01-2	Plates pre-coated with anti-species antibodies for immobilizing antibodies from glycerol stocks or antibody stocks with high concentrations of carrier proteins
ELISA Conversion Pack III	K15A01-3	Plates pre-coated with avidin or streptavidin for immobilizing biotinylated antibodies
SULFO-TAG NHS-Ester	R91AN-3	Labeling reagent with an NHS-Ester functional group for conjugating molecules containing primary amines for use as detection reagents
SULFO-TAG Streptavidin	R32AD-5	Labeling reagent for use as a secondary reporter with biotinylated detection antibodies or other biotinylated detection reagents as primary detection reagents
SULFO-TAG Anti-Mouse Antibody (Goat)	R32AC-5	Labeling reagent for use as a secondary reporter with unlabeled mouse antibodies as primary detection reagents
SULFO-TAG Anti-Rabbit Antibody (Goat)	R32AB-5	Labeling reagent for use as a secondary reporter with unlabeled rabbit antibodies as primary detection reagents
Diluent 100	R50AA-4	A blend of stabilizers and protein in PBS for use as an antibody diluent

Please view the comprehensive product insert for MSD Standard and High Bind plates available at www.mesoscale.com for detailed instructions and guidance on assay development, assay optimization, FAQs, and journal references on different applications of the plates.

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