Cell-Based Assay Applications from Meso Scale Discovery

Meso Scale Discovery's MULTI-ARRAY® technology enables and improves the development of previously challenging cell-based assay applications. MSD's cell-friendly carbon electrode plate surface uniquely allows the immobilization of whole cells or membranes, eliminating difficulties with producing functional recombinant cell surface proteins. Let MSD's cell-based assay applications enable you to perform:

- Hybridoma screening for antibodies against cell surface proteins.
- Screening for autoimmune antibodies against cell surface proteins.
- Neutralization assays for immune response screening to protein and antibody drugs.
- Compound inhibition for receptor-ligand or receptor-antibody interactions.

MSD Cell Based Assay Application: Hybridoma Screening Screening for Antibodies Against Cell Surface anti-species SULFO-TAG Receptors (12,500 cells/well) detection antibody 7,000 Positive I 6,000 5,000 4,000 3,000 2,000 Positive 2 1,000 0.4 0.8 0.2 0.6 -1,000 Sample Assay Concentration of Antibody (µg/mL)

Protocol

- 1. Immobilize cells on plate in PBS at 37°C for 1 hour.
- 2. Wash 3 times with PBS.
- 3. Add 25 μ L/well sample for 1 hour at room temperature.
- 4. Wash 3 times with PBS.
- 5. Add 25 μ L/well SULFO-TAG detection antibody (1 μ g/mL in PBS-0.5% FBS) for 1 hour at room temperature.
- 6. Wash 3 times with PBS.
- 7. Add 150 µL/well 1X Read Buffer T, surfactant free, and analyze plate on SECTOR™ instrument.

Advantages of MSD over FACS Scanning

Method Comparison				
	MSD	FACS Scanning		
Cells per Assay Determination	12,500	100,000		
Sample Volume	25 μL	50 μL		
Detection Antibody Volume	25 μL	50 μL		
Centrifugation After Wash Step	No	Yes		
Automation Applicable	Yes	No		
Read Time per 96-Well Plate	70 sec	l hr		
Throughput per Day (plates)	> 10-50 Plates	< 3 Plates		

- Develop a method for screening cell surface receptors in as little as 2 days.
- Generate 600 data points in 4 hours.
- User friendly instrument (2 clicks and read).
- Simple data analysis.

MSD Products

96-well MULTI-ARRAY Plates					
	PR100	PR400	S12400	000012	
Uncoated Standard Uncoated High-Bind	LI3XA-I LI3XB-I	LI7XA-I LI7XB-I	LI5XA-I LI5XB-I	LIIXA-I LIIXB-I	

Labeled Reporters and Labeling Reagents				
SULFO-TAG NHS-Ester	150 nMoles	R9 I AN- I		
SULFO-TAG Anti-Rabbit Antibody (Goat)	50 μg	R32AB-5		
SULFO-TAG Anti-Mouse Antibody (Goat)	50 μg	R32AC-5		
SULFO-TAG Anti-Human Antibody (Goat)	50 μg	R32AJ-5		

FOR RESEARCH USE ONLY

Contact Information

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