

Alexa Fluor™ 488-Labeled Human MSP1D1 Full Length Protein, His Tag (Nanodisc, Site-specific conjugation)

Catalog # APO-HA1H4



BIOSYSTEMS
Acro

Application

- Cell based assay ([FACS](#) or functional assay)
- Affinity testing (SPR / BLI)
- Screening (ELISA)

Synonyms

MSP1D1

Source

Nanodisc Alexa Fluor 488-Labeled Human MSP1D1 Full Length Protein, His Tag (APO-HA1H4) is produced via site-specific conjugation of AF488 to Human MSP1D1 Protein, His Tag under optimal conditions with a proprietary technology. Human MSP1D1 Protein, His Tag is expressed from *E. coli* cells. It contains AA Ser 1- Gln 211 (Accession # P02647).

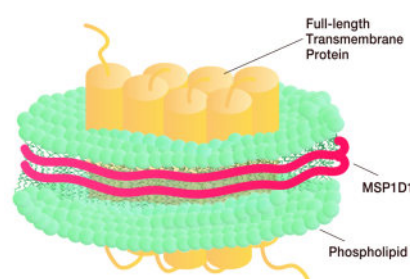
Predicted N-terminus: Met

Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 29.4 kDa. This protein is used together with nanodisc protein as isotype control.

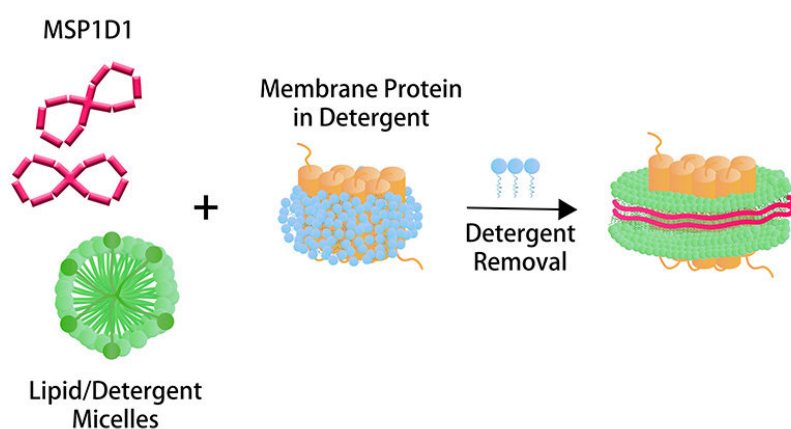
*The isotype control of empty/mock nanodisc (Cat. No. [APO-H51H3](#)) is sold separately and not included in protein, you can follow [the link](#) for product information.

• Structure



Nanodisc membrane protein is wrapped by a synthetic phospholipid bilayer membrane structure, composed of membrane scaffold proteins (MSPs) and phospholipids.

• Synthesis Process



Nanodisc reconstitution is a self-assembly process that **starts from purified, detergent-solubilized membrane proteins** and reconstitutes them into synthetic phospholipid bilayers stabilized by MSP1D1 membrane scaffold protein. This creates a stable, detergent-free environment that preserves native conformation and biological activity, with excellent homogeneity and full compatibility with **cell-based assays such as FACS** and binding assays in antibody discovery and screening (ELISA),etc.

Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

Formulation

Supplied as 0.2 µm filtered solution in PBS, 0.5% BSA, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please protect from light and avoid repeated freeze-thaw cycles.

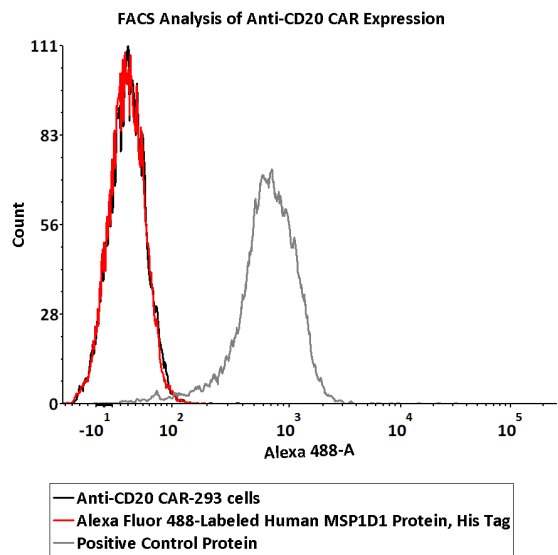
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

ACRO Quality Management System

- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

Bioactivity-Flow Cytometry



5e5 of Anti-CD20 CAR-293 cells were stained with 100 µL of 1:20 dilution (5 µL stock solution in 100 µL FACS buffer) of Alexa Fluor 488-Labeled Human MSP1D1 Full Length Protein, His Tag and positive control protein respectively. AF488 signal was used to evaluate the binding activity (QC tested).

Background

A designed thermostable variant of the soluble domain of an ion channel protein, often used in membrane protein structural biology as a fusion partner. Functionally, it relates to mechanosensitive channels. In therapeutic contexts, MSP1D1 serves as a scaffold for generating stable, soluble membrane protein antigens for immunization and antibody discovery.

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