

**Synonym**

MSP1D1

SourceHuman MSP1D1 Protein, His Tag (APO-H51H3) is expressed from *E. coli* cells.

It contains AA Gly 1 - Gln 211.

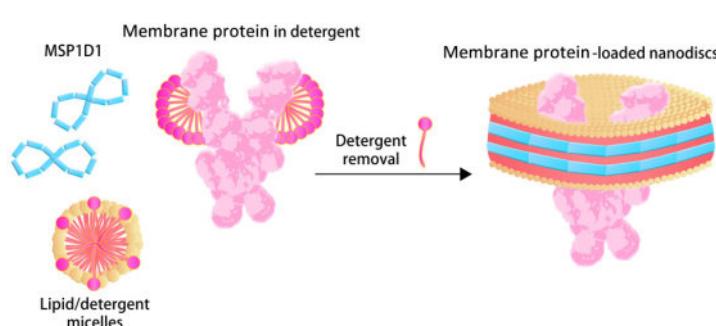
Predicted N-terminus: Met

Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 24.7 kDa. The protein migrates as 23 kDa and 25 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

This protein is used together with nanodisc protein as isotype control.

Nanodiscs are a new class of model membranes that are being used to solubilize and study a range of integral membrane proteins and membrane-associated proteins. The Nanodisc bilayer is bounded by an amphipathic scaffold coat that confers enhanced stability and a narrow particle size distribution.



The nanodisc assembles from a mixture of full length membrane protein in detergent, phospholipid micelles and membrane scaffold protein upon removal of the detergent.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μ m filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

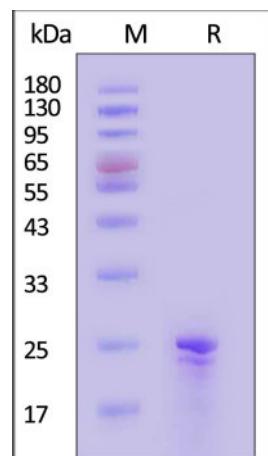
This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

Please avoid repeated freeze-thaw cycles.

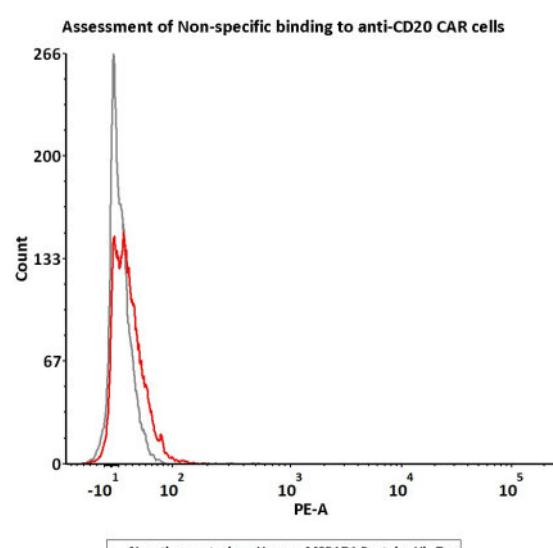
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

SDS-PAGE

Human MSP1D1 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

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**Bioactivity-FACS**

2e5 of CD20-CAR-293 cells transfected with anti-CD20-scFv were stained with 100 μ L of 10 μ g/mL of Human MSP1D1 Protein, His Tag (Cat. No. APO-H51H3), washed and then followed by PE anti-His antibody and analyzed with FACS. PE anti-His antibody was used as negative control (QC tested).

Background

Membrane scaffold proteins (MSPs) are synthetic derivatives of apolipoprotein A-I, a major protein component of human high-density lipoprotein complexes. Membrane scaffold protein 1D1 (MSP1D1) is the most common one among the MSPs variants. MSP1D1 is a synthetic derivate of apolipoprotein A-I, which is the major protein element of human high-density lipoproteins. The amphipathic, synthetic protein has the ability to self-assemble in the presence of synthetic phospholipids into discoidal nanoparticles, so called nanodiscs.

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