Biotinylated Human Mesothelin / MSLN (296-580) Protein, His Tag, ultra sensitivity (primary amine labeling)

Catalog # MSN-H8223

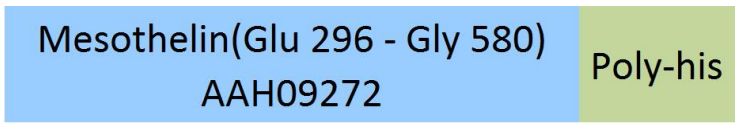
Synonym

MSLN,Mesothelin,MPF

Source

Biotinylated Human Mesothelin (296-580), His Tag, primary amine labeling (MSN-H8223) is expressed from human HEK293 cells. It contains AA Glu 296 - Gly 580 (Accession # AAH09272).
Predicted N-terminus: Glu 296

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 33.0 kDa. The protein migrates as 35-43 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 0.1 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

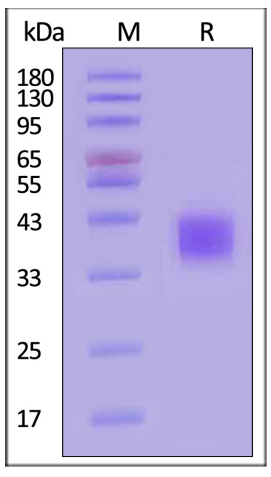
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

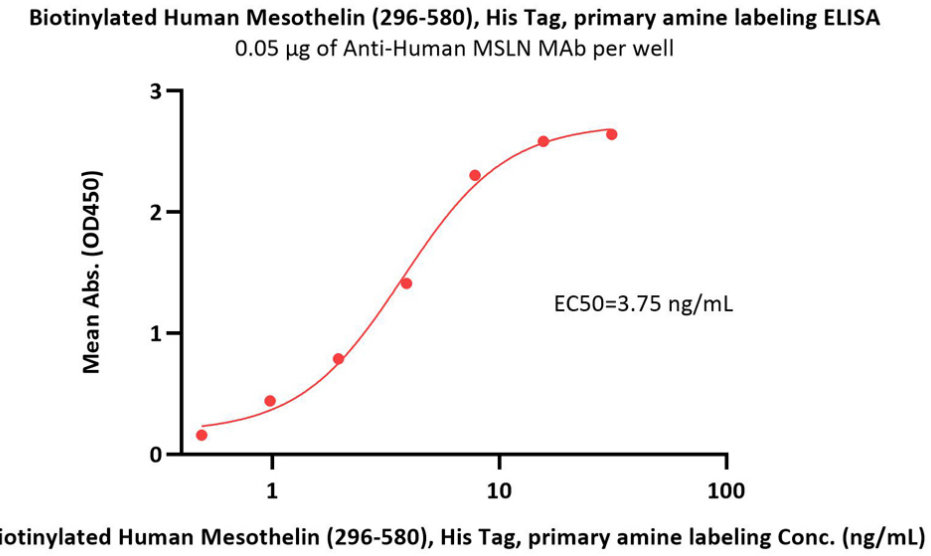
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human Mesothelin (296-580), His Tag, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

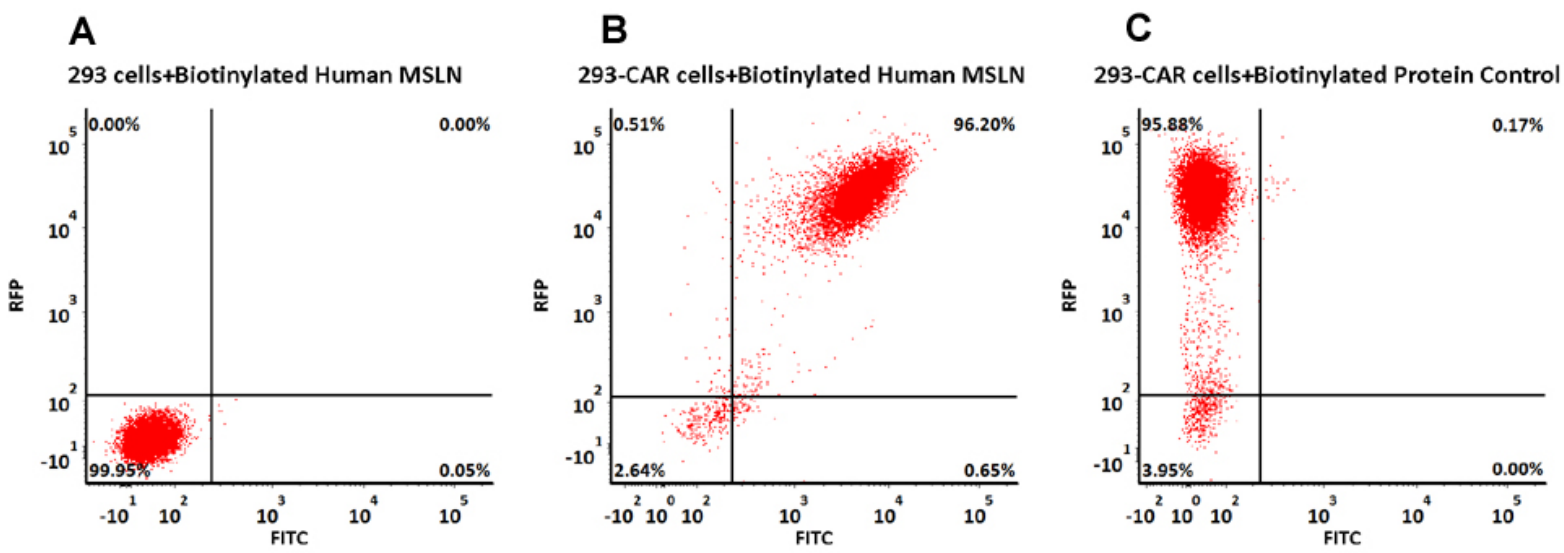
Bioactivity-ELISA



Immobilized Anti-Human MSLN MAb at 0.5 μg/mL (100 μL/well) can bind Biotinylated Human Mesothelin (296-580), His Tag, primary amine labeling (Cat. No. MSN-H8223) with a linear range of 0.5-8 ng/mL (QC tested).

Evaluation of CAR expression

FACS Analysis of Anti-MSLN CAR Expression



293 cells were transfected with anti-MSLN-scFv and RFP tag. 2e5 of the cells were first stained with B. Biotinylated Human Mesothelin (296-580), His Tag, primary amine labeling (Cat. No. MSN-H8223, 3 μg/mL) and C. Biotinylated Protein Control, followed by FITC Streptavidin. A. Non-transfected 293 cells and C. Biotinylated Protein Control were used as negative control. RFP was used to evaluate CAR (anti-MSLN-scFv) expression and FITC was used to evaluate the binding activity of Biotinylated Human Mesothelin (296-580), His Tag, primary amine labeling (Cat. No. MSN-H8223).

Background

Mesothelin (MSLN) is also known as CAK1 antigen, Pre-pro-megakaryocyte-potentiating factor, which belongs to the mesothelin family. Mesothelin / MSLN can be proteolytically cleaved into the following two chains by a furin-like convertase: Megakaryocyte-potentiating factor (MPF) and the cleaved form of mesothelin. Both MPF and the cleaved form of mesothelin are N-glycosylated. Mesothelin / MSLN can interacts with MUC16. The membrane-anchored forms of MSLN may play a role in cellular adhesion. MPF potentiates megakaryocyte colony formation in vitro.