

Biotinylated Human Mesothelin / MSLN (296-580) Protein, His,Avitag™, premium grade

Catalog # MSN-H82E9



Synonym

MSLN, Mesothelin, MPF

Source

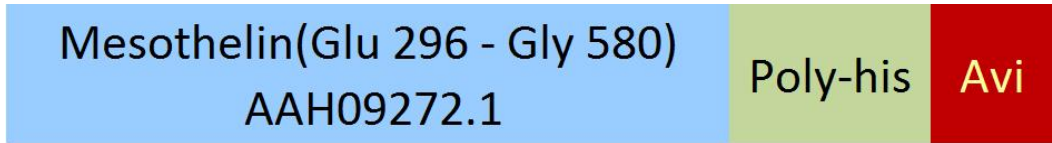
Biotinylated Human Mesothelin (296-580), His,Avitag, premium grade (MSN-H82E9) is expressed from human 293 cells (HEK293). It contains AA Glu 296 - Gly 580 (Accession # [AAH09272.1](#)).

Predicted N-terminus: Glu 296

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage.

MBS-C003 is the GMP version of this MSN-H82E9. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stag to later clinical phases.

Molecular Characterization



[Other Tags and Version](#) [Biotin & Other Labeled Version](#)

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).
The protein has a calculated MW of 35.9 kDa. The protein migrates as 40-50 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Sterility

Negative

Mycoplasma

Negative

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

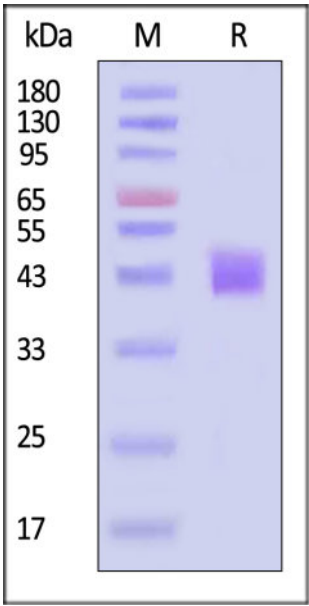
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:

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

ACRO Quality Management System

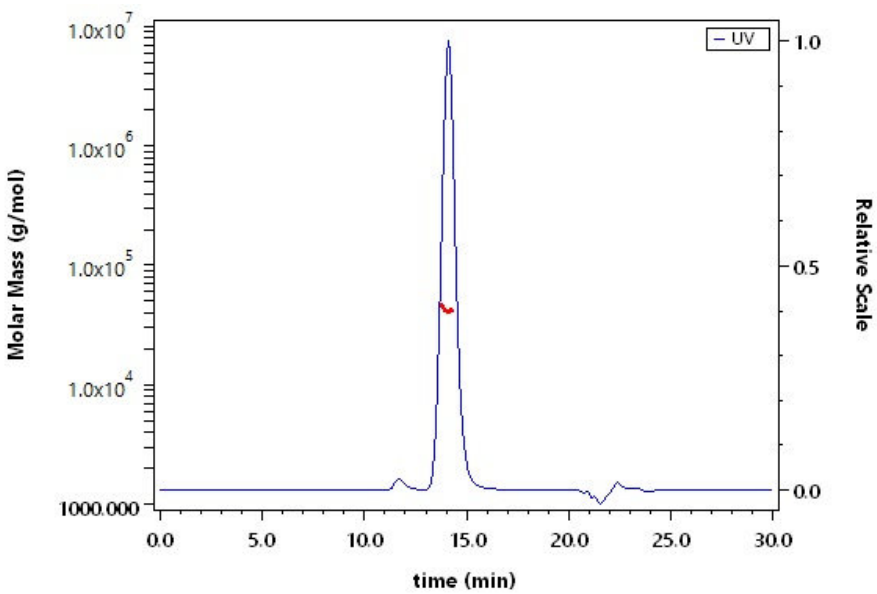
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



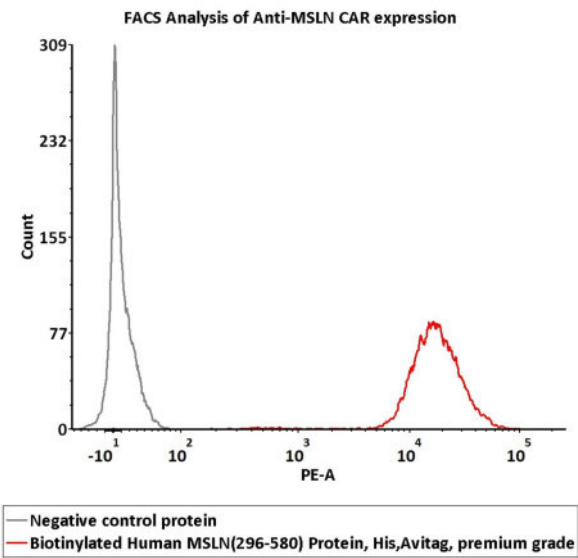
Biotinylated Human Mesothelin (296-580), His,Avitag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



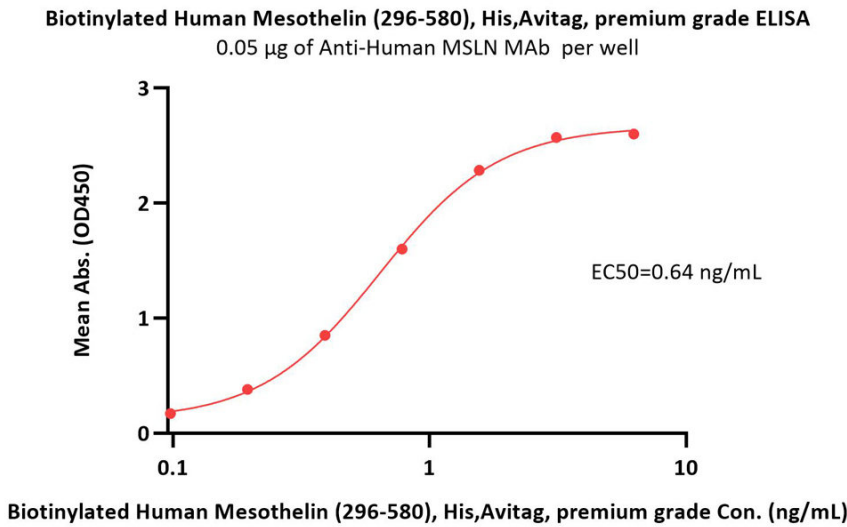
The purity of Biotinylated Human Mesothelin (296-580), His,Avitag, premium grade (Cat. No. MSN-H82E9) is more than 85% and the molecular weight of this protein is around 38-53 kDa verified by SEC-MALS.

Bioactivity-FACS



2e5 of Anti-MSLN CAR-293 cells were stained with 100μL of 1 μg/mL of Biotinylated Human Mesothelin (296-580), His,Avitag, premium grade (Cat. No. MSN-H82E9) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (QC tested).

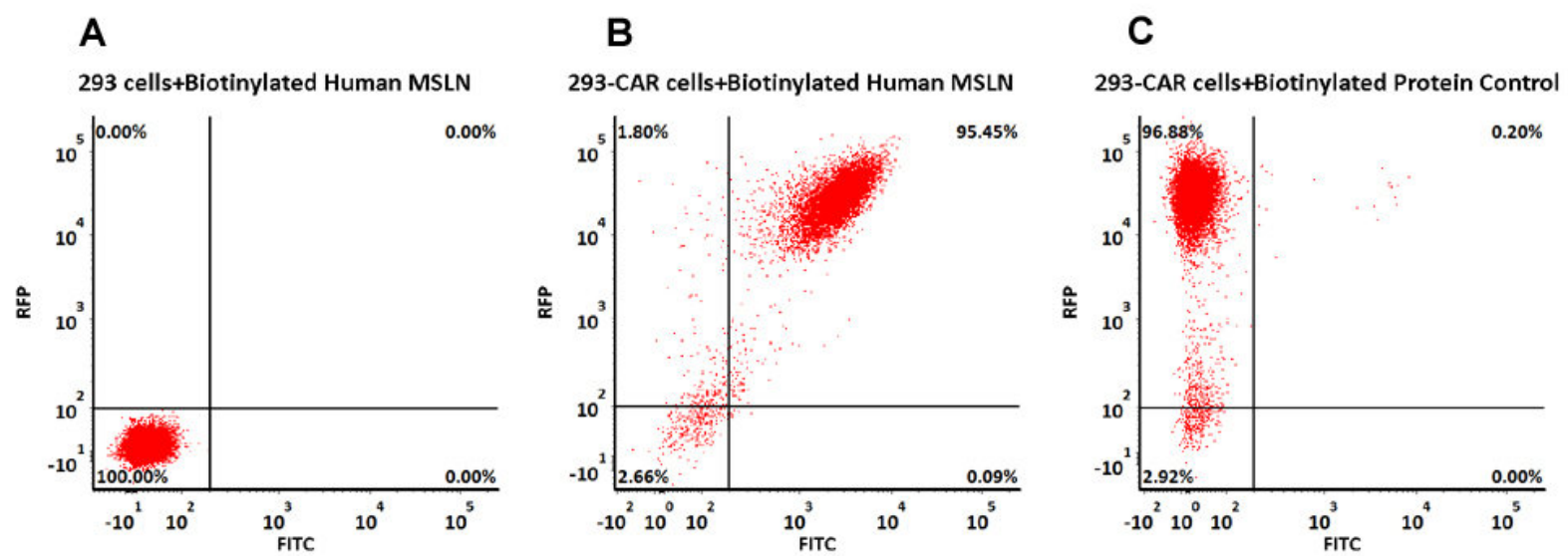
Bioactivity-ELISA



Immobilized Anti-Human MSLN MAb at 0.5 μg/mL (100 μL/well) can bind Biotinylated Human Mesothelin (296-580), His,Avitag, premium grade (Cat. No. MSN-H82E9) with a linear range of 0.1-0.78 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,Avitag, premium grade (Cat. No. MSN-H82E9, 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,Avitag, premium grade (Cat. No. MSN-H82E9).

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.

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