



## Synonym

MSLN, Mesothelin, MPF

## Source

Human Mesothelin (296-580), Fc Tag, premium grade(MSN-H5253) 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. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

## Molecular Characterization

Mesothelin(Glu 296 - Gly 580)	Fc(Pro 100 - Lys 330)
AAH09272.1	P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 58.6 kDa. The protein migrates as 66-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.01 EU per  $\mu$ g by the LAL method / rFC method.

## Sterility

Negative

## Mycoplasma

Negative

## Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22  $\mu$ m 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

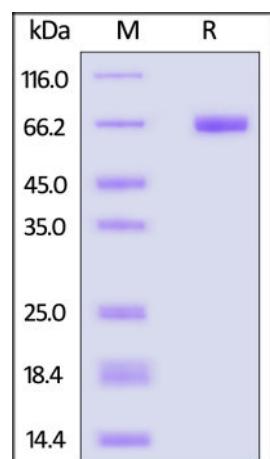
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

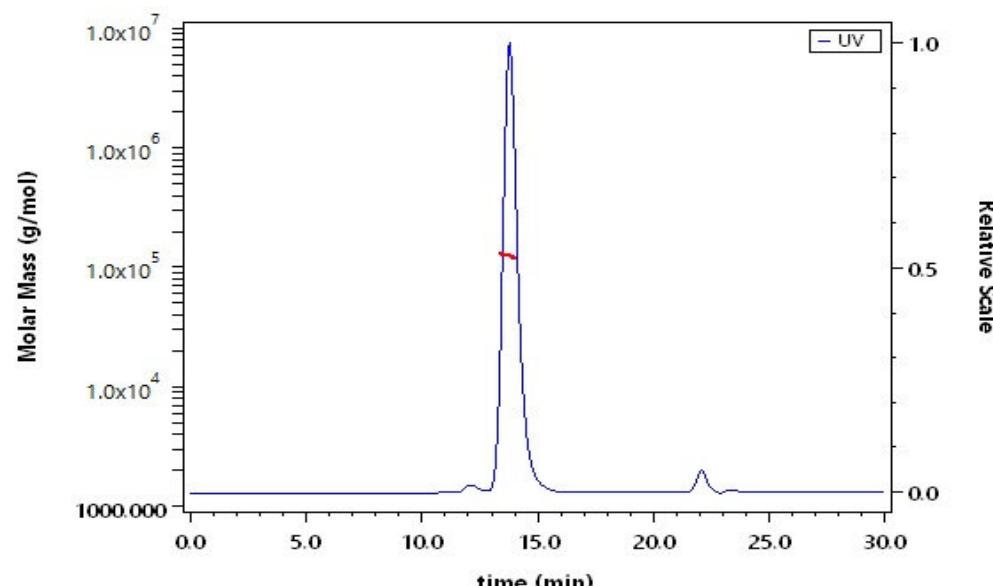
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

## SDS-PAGE



Human Mesothelin (296-580), Fc Tag, 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%.

## SEC-MALS



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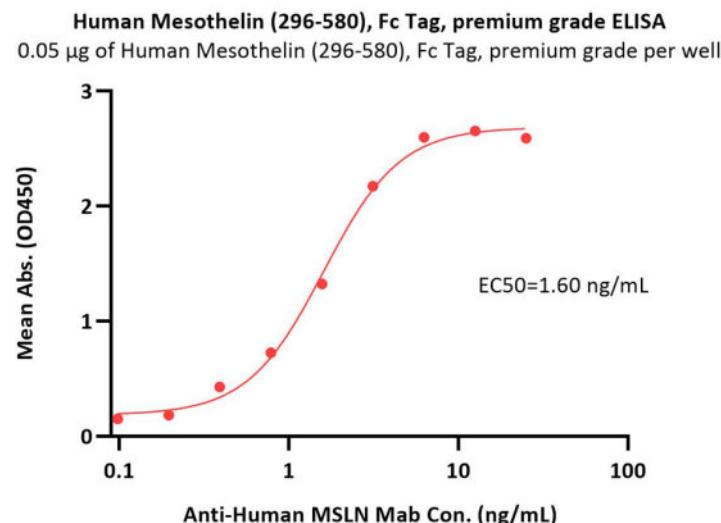
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The purity of Human Mesothelin (296-580), Fc Tag, premium grade (Cat. No. MSN-H5253) is more than 95% and the molecular weight of this protein is around 115-150 kDa verified by SEC-MALS.

[Report](#)

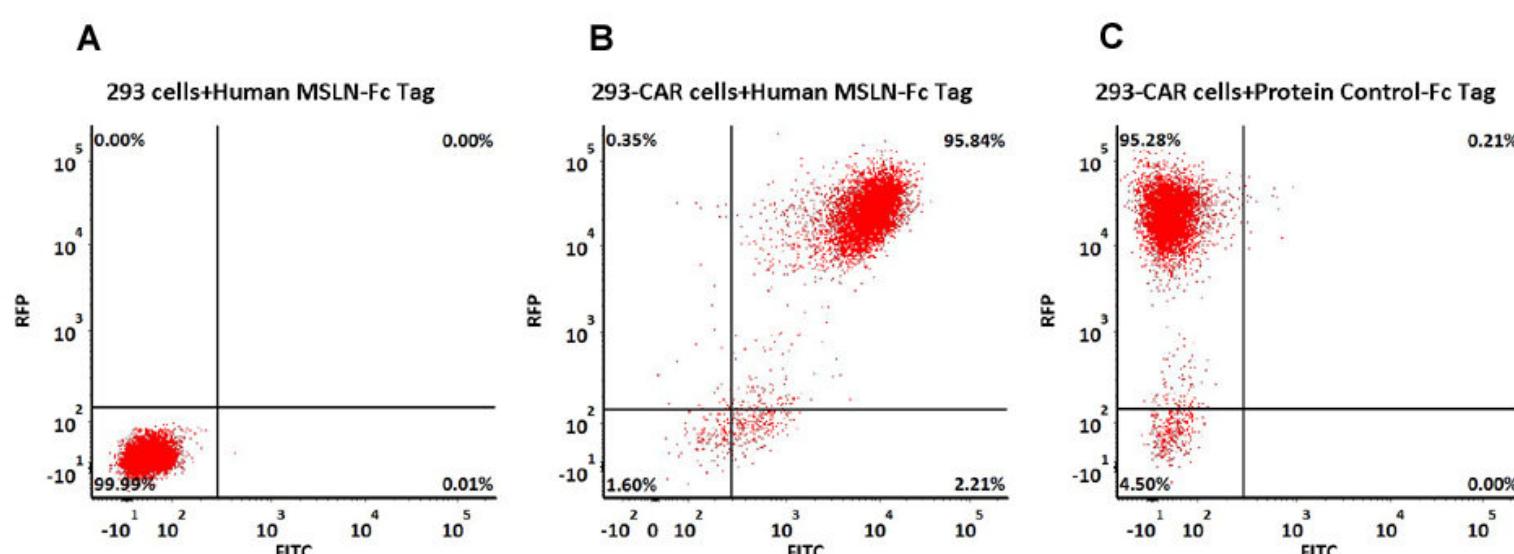
## Bioactivity-ELISA



Immobilized Human Mesothelin (296-580), Fc Tag, premium grade (Cat. No. MSN-H5253) at 0.5 µg/mL (100 µL/well) can bind Anti-Human MSLN Mab with a linear range of 0.1-3 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. Human Mesothelin (296-580), Fc Tag, premium grade (Cat. No. MSN-H5253, 1 µg/mL) and C. Fc Tag Fusion Protein Control, followed by FITC anti-human IgG Fc. A. Non-transfected 293 cells and C. Fc Tag Fusion 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 Human Mesothelin (296-580), Fc Tag, premium grade (Cat. No. MSN-H5253).

## 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 interact 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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