Human Mesothelin / MSLN (296-580) Protein, His Tag, premium grade

Catalog # MSN-H522a

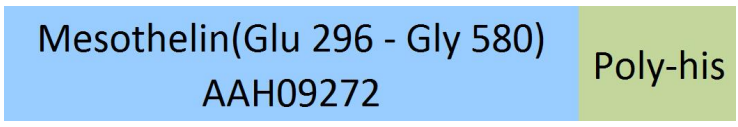
Synonym

MSLN,Mesothelin,MPF

Source

Human Mesothelin (296-580), His Tag, premium grade(MSN-H522a) is expressed from human 293 cells (HEK293). It contains AA Glu 296 - Gly 580 (Accession # AAH09272).
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



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

The protein has a calculated MW of 33.0 kDa. The protein migrates as 38-50 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

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

Sterility

Negative

Mycoplasma

Negative.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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

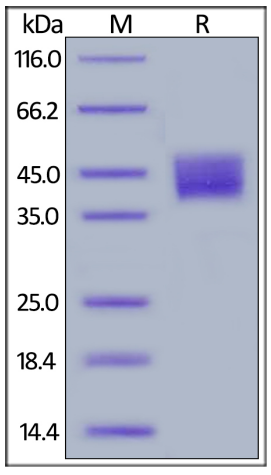
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

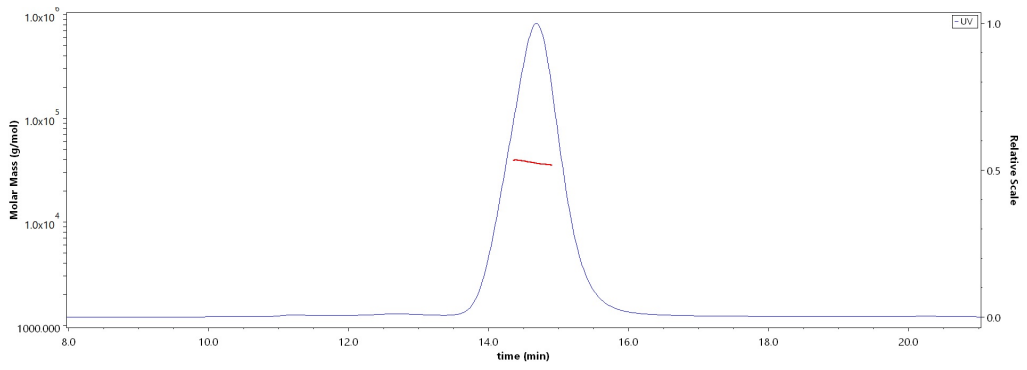
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



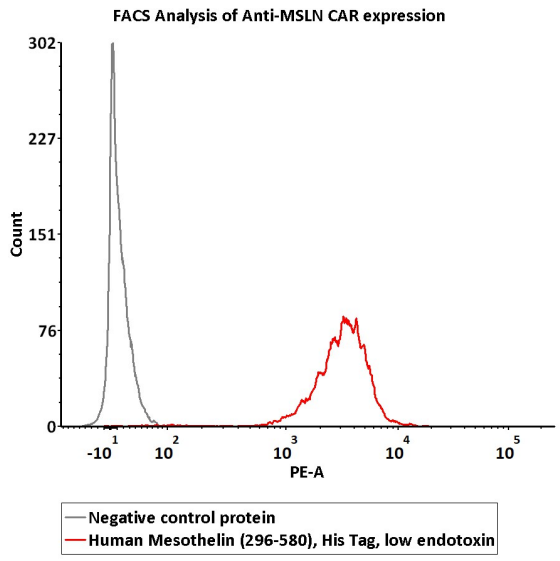
Human Mesothelin (296-580), His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS



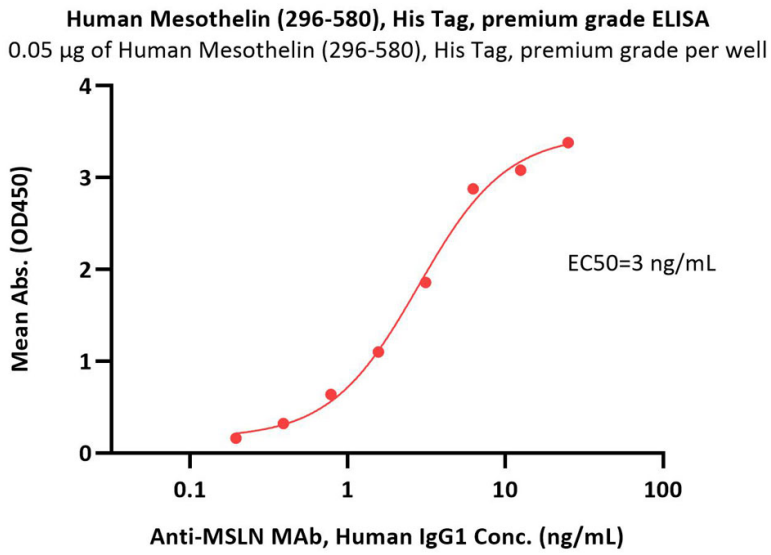
The purity of Human Mesothelin (296-580), His Tag, premium grade (Cat. No. MSN-H522a) is more than 90% and the molecular weight of this protein is around 32-47 kDa verified by SEC-MALS.
Report

Bioactivity-FACS



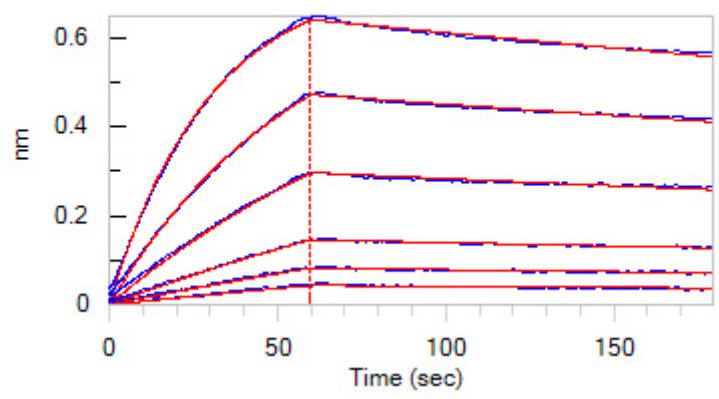
2e5 of Anti-MSLN CAR-293 cells were stained with 100 μL of 1 μg/mL of Human Mesothelin (296-580), His Tag, premium grade (Cat. No. MSN-H522a) and negative control protein respectively, washed and then followed by His Tag PE-conjugated Antibody and analyzed with FACS (QC tested).

Bioactivity-ELISA



Immobilized Human Mesothelin (296-580), His Tag, premium grade (Cat. No. MSN-H522a) at 0.5 μg/mL (100 μL/well) can bind Anti-MSLN MAb, Human IgG1 with a linear range of 0.2-3 ng/mL (QC tested).

Bioactivity-BLI



Loaded Monoclonal Anti-Human MSLN Antibody, Human IgG1 on Protein A Biosensor, can bind Human Mesothelin (296-580), His Tag, premium grade (Cat. No. MSN-H522a) with an affinity constant of 3.57 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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.