FITC-Labeled Human Mesothelin / MSLN (296-580) Protein, His Tag

Catalog # MSN-HF223

Surprise Inside!

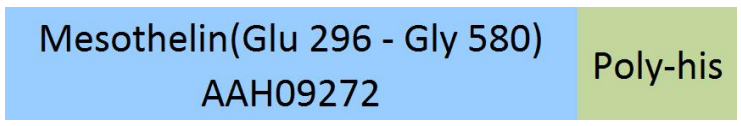
Synonym

MSLN,Mesothelin,MPF

Source

FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF223) is expressed from human HEK293 cells. It contains AA Glu 296 - Gly 580 (Accession # AAH09272). It is the FITC labeled form of Human Mesothelin (296-580), His Tag.
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 kDa. The protein migrates as 35-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is ***0.5-1.5***.

Purity

>90% 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

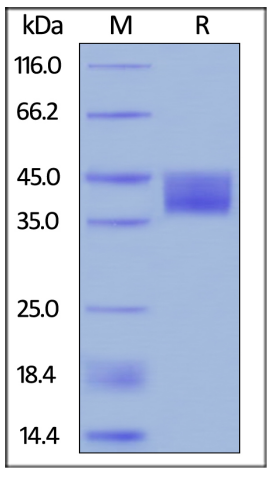
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

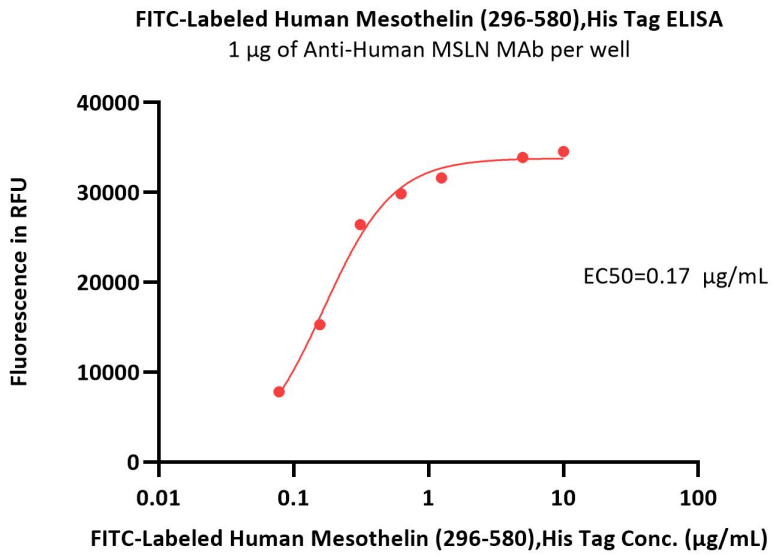
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



FITC-Labeled Human Mesothelin (296-580), 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%.

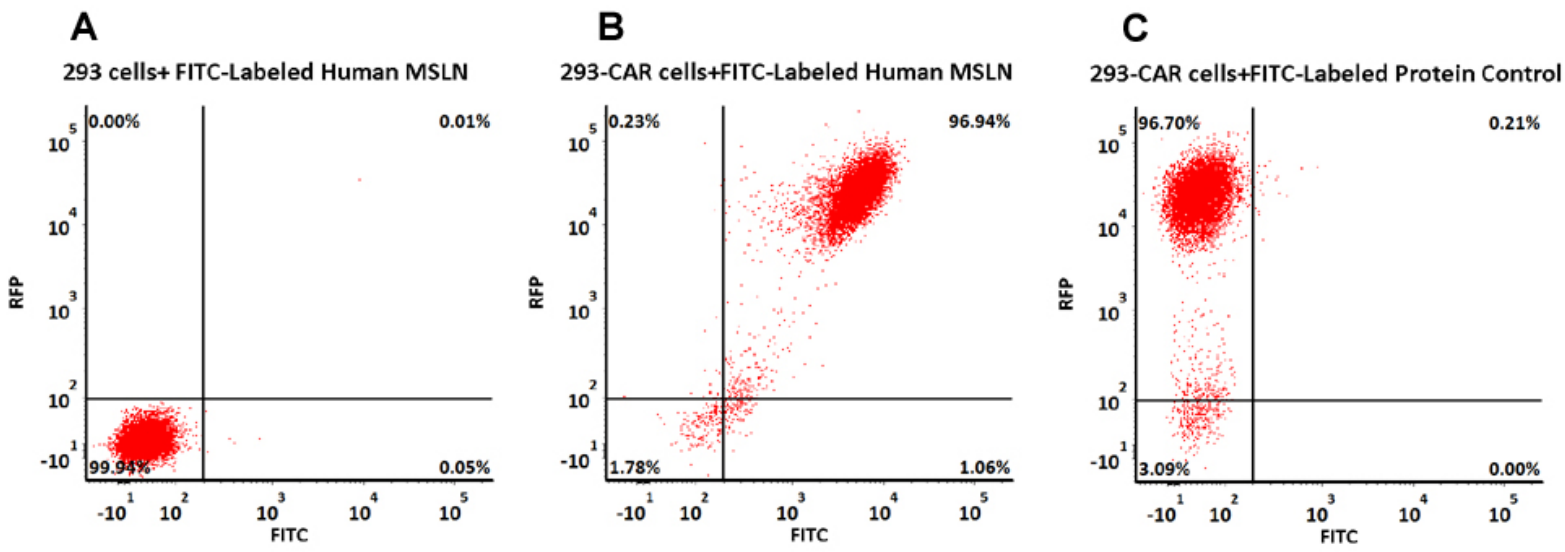
Bioactivity-ELISA



Immobilized Anti-Human MSLN MAb at 10 μg/mL (100 μL/well) can bind FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF223) with a linear range of 0.078-0.313 μg/mL (Ex.488 nm/Em.535 nm) (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 stained with B. FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF223, 1 μg/mL) and C. FITC-labeled protein control. A. Non-transfected 293 cells and C. FITC-labeled 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 FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF223).

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.