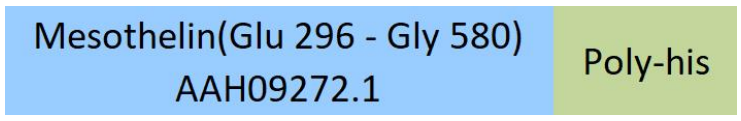
Synonym

MSLN,Mesothelin,MPF

Source

FITC-Labeled Human Mesothelin (296-580), His Tag (MSN-HF2H3) is produced via conjugation of FITC to Human Mesothelin (296-580), His Tag with a new generation site-specific technology under Star Staining labeling platform. Human Mesothelin (296-580), His Tag is expressed from human 293 cells (HEK293). It contains AA Glu 296 - Gly 580 (Accession # AAH09272.1). Predicted N-terminus: Glu 296

Molecular Characterization



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

The protein has a calculated MW of 48.5 kDa. The protein migrates as 50-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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

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

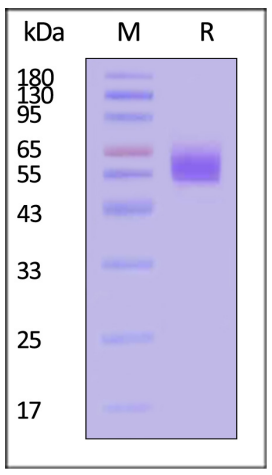
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

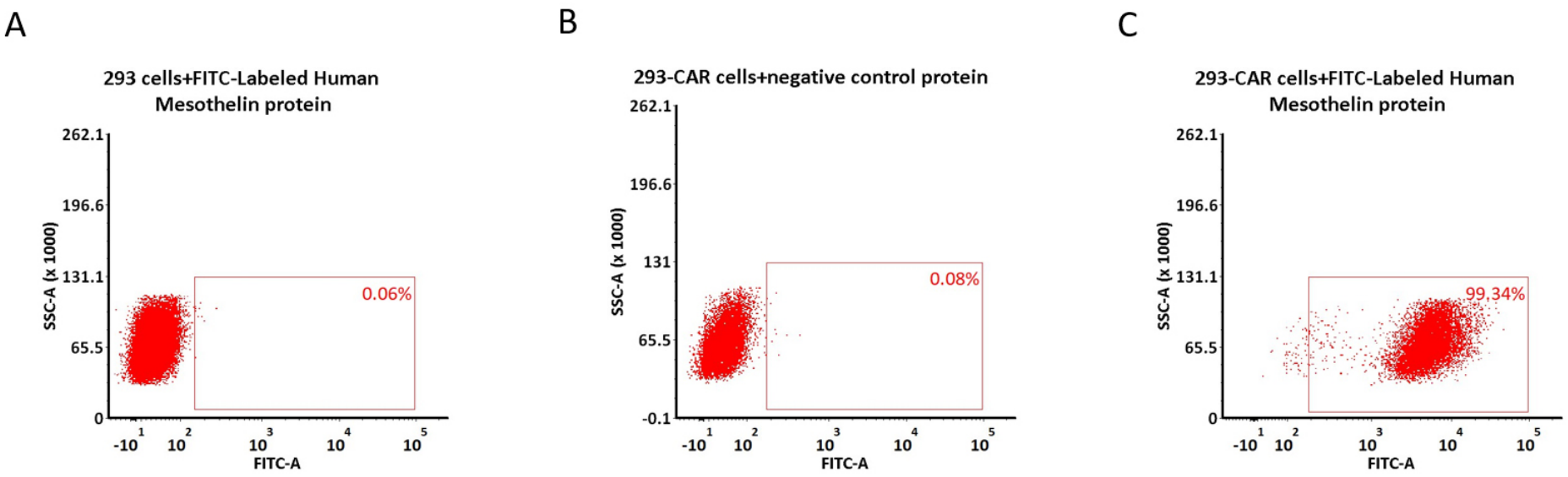


FITC-Labeled Human Mesothelin (296-580), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity

of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

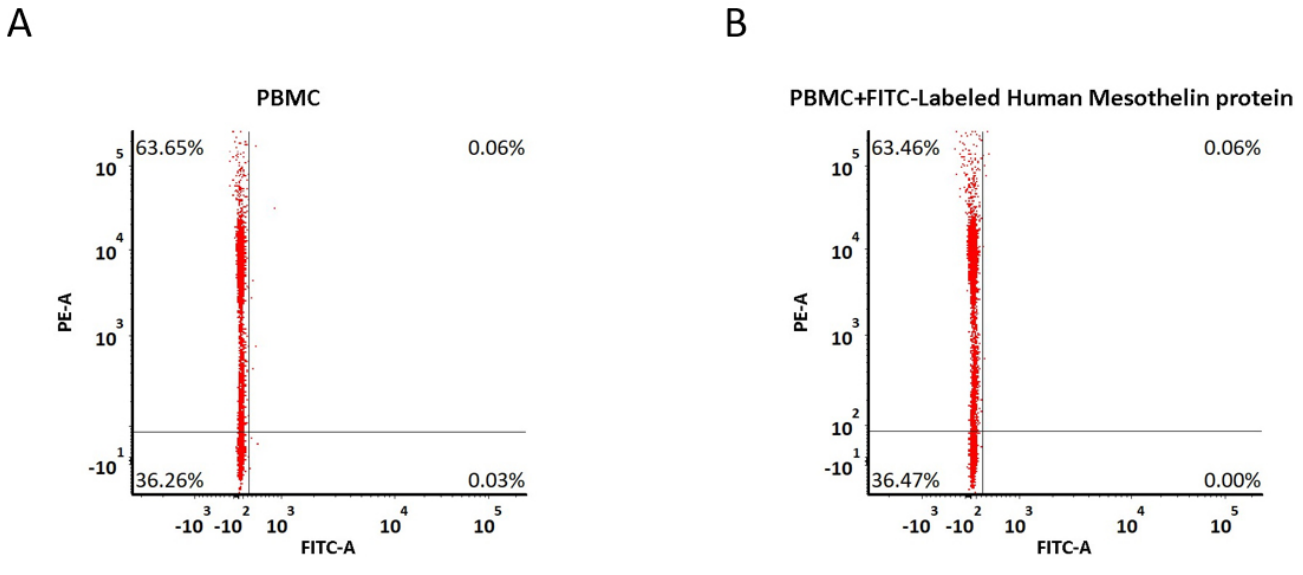
Evaluation of CAR expression

FACS Analysis of Anti-Mesothelin CAR Expression



2e5 of 293 CAR cells transfected with anti-MSLN-scFv were stained with 100 μL of 3 μg/mL of FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF2H3) and negative control protein respectively (Fig. C and B), and non- transfected 293 cells were used as a control (Fig. A), FITC signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with FITC-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HF2H3) and anti-CD3 antibody, washed and then analyzed with FACS. PE signal was used to evaluate the expression of CD3+ T cells in PBMCs, and FITC signal was used to evaluate the non-specific binding activity to PBMCs (QC 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.