

Synonym

MSLN,Mesothelin,MPF

Source

Alexa Fluor 647-Labeled Human Mesothelin (296-580), His Tag (MSN-HA2H5) is produced via conjugation of AF647 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

Mesothelin(Glu 296 - Gly 580) AAH09272.1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 49.1 kDa.

Conjugate

AF647

Excitation Wavelength: 640 nm

Emission Wavelength: 672 nm

Endotoxin

Less than 1.0 EU per µg by the LAL method.

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.

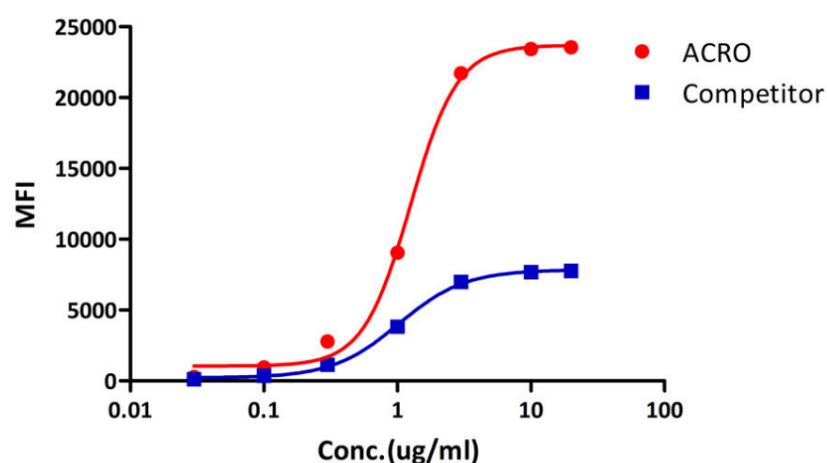
Storage

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

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

This product is stable after storage at:

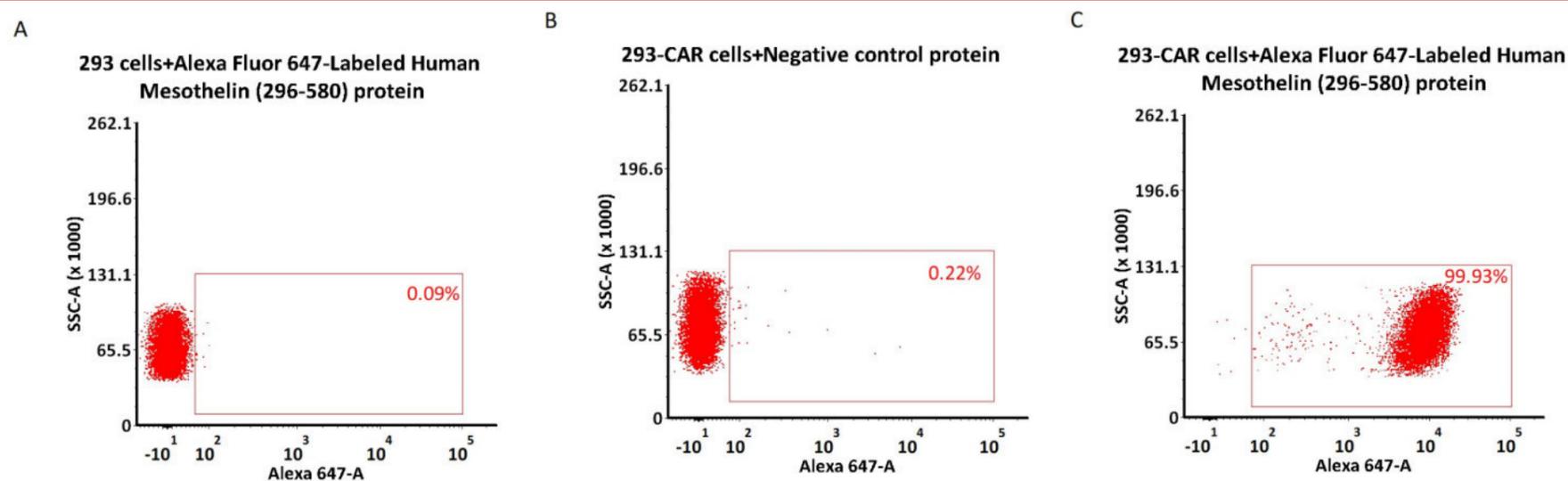
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-FACS**Alexa Fluor 647-Labeled Human Mesothelin (296-580) Protein**

The activity of Alexa Fluor 647-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HA2H5) was higher than other Competitor R.

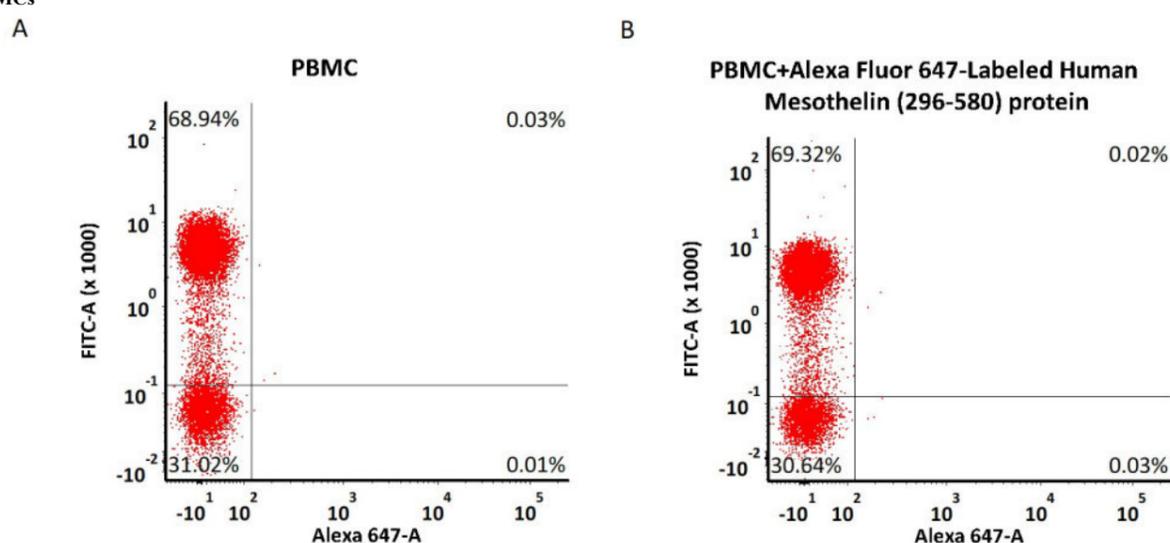
Evaluation of CAR expression

FACS Analysis of Anti-Mesothelin CAR Expression



5e5 of anti-MSLN CAR-293 cells were stained with 100 µL of 1 µg/mL of Alexa Fluor 647-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HA2H5) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). AF647 signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with Alexa Fluor 647-Labeled Human Mesothelin (296-580), His Tag (Cat. No. MSN-HA2H5) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3+ T cells in PBMCs, and AF647 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 interact with MUC16. The membrane-anchored forms of MSLN may play a role in cellular adhesion. MPF potentiates megakaryocyte colony formation in vitro.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.