Biotinylated Human MICA Protein, His,Avitag™ (MALS verified)

Catalog # MIA-H82E6

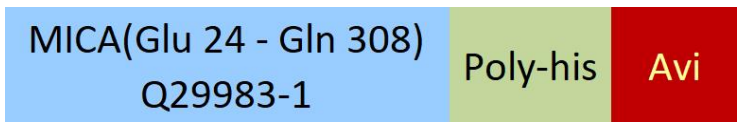
Synonym

MIC-A

Source

Biotinylated Human MICA, His,Avitag(MIA-H82E6) is expressed from human 293 cells (HEK293). It contains AA Glu 24 - Gln 308 (Accession # Q29983-1). Predicted N-terminus: Glu 24

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.4 kDa. The protein migrates as 52-62 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% 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

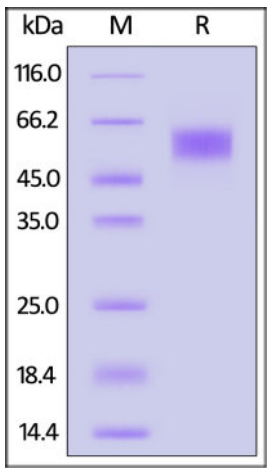
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

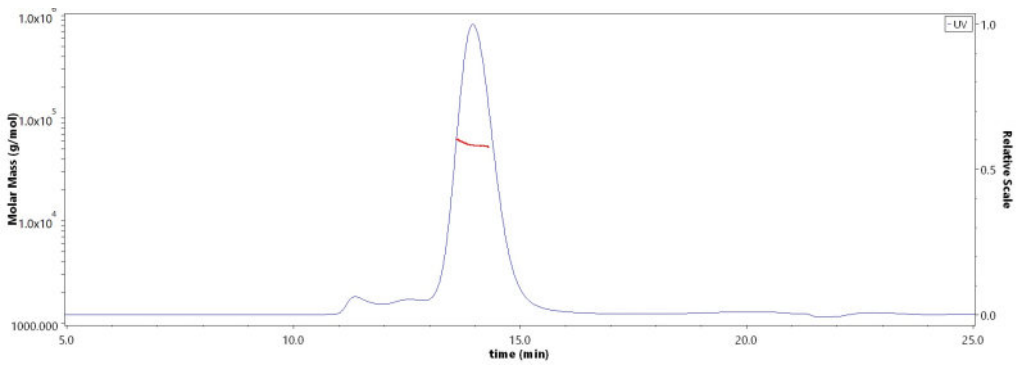
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



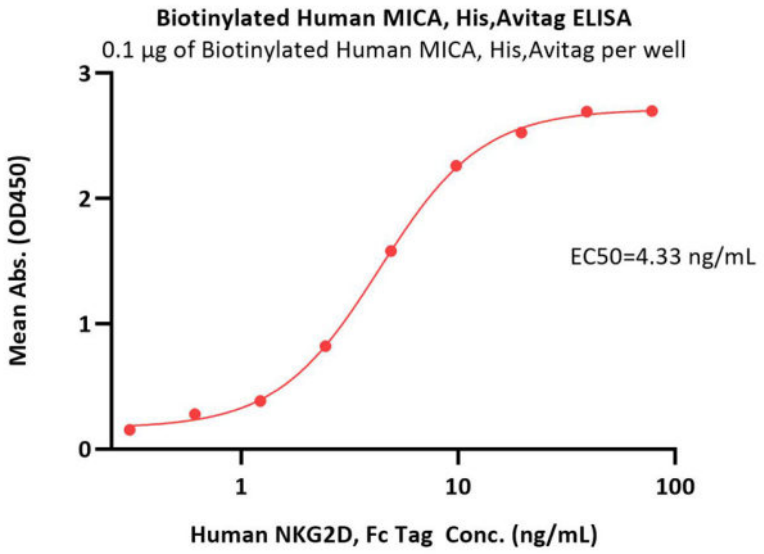
Biotinylated Human MICA, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

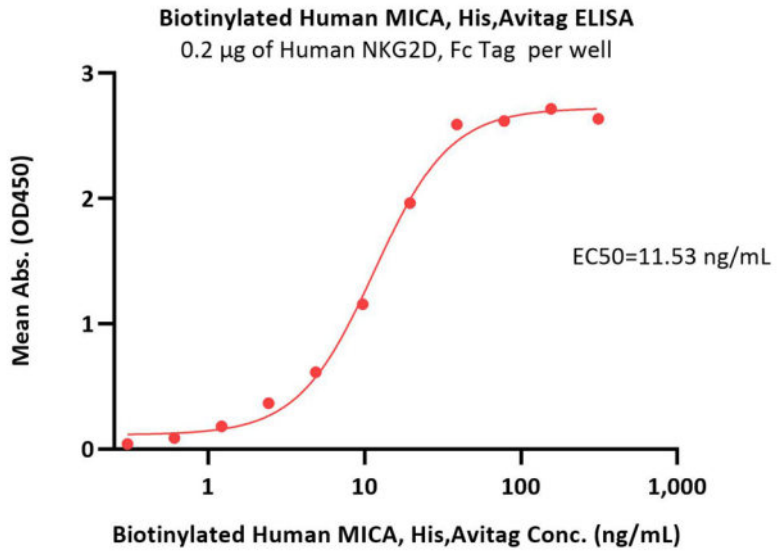


The purity of Biotinylated Human MICA, His,Avitag (Cat. No. MIA-H82E6) is more than 90% and the molecular weight of this protein is around 47-64 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human MICA, His,Avitag (Cat. No. MIA-H82E6) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human NKG2D, Fc Tag (Cat. No. NKD-H5265) with a linear range of 0.3-10 ng/mL (QC tested).



Immobilized Human NKG2D, Fc Tag (Cat. No. NKD-H5265) at 2 μg/mL (100 μL/well) can bind Biotinylated Human MICA, His,Avitag (Cat. No. MIA-H82E6) with a linear range of 0.3-39 ng/mL (Routinely tested).

Background

MHC class I polypeptide-related sequence A (MICA) belongs to the MHC class I family and MIC subfamily. MICA contains one Ig-like C1-type (immunoglobulin-like) domain. Unlike classical MHC class I molecules, MICA does not form a heterodimer with beta-2-microglobulin. MICA acts as a stress-induced self-antigen that is recognized by gamma delta T-cells. MICA is ligand for the KLRK1/NKG2D receptor. MICA bind to KLRK1 leads to cell lysis.

Clinical and Translational Updates

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