

Synonym

MIC-A

Source

Human MICA Protein, IgG4 Fc Tag(MIA-H5259) is expressed from human 293 cells (HEK293). It contains AA Glu 24 - Gln 308 (Accession # [AAH16929.1](#)).

Predicted N-terminus: Glu 24

Molecular Characterization

MICA(Glu 24 - Gln 308) AAH16929.1	IgG4 Fc(Glu 99 - Lys 327) P01861
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The protein has a calculated MW of 36.4 kDa. The protein migrates as 80-95 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

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.

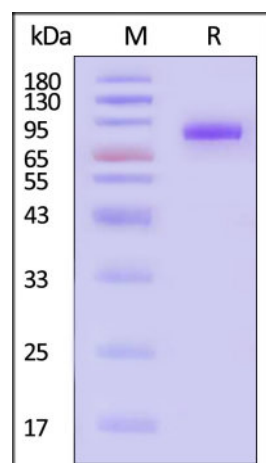
Storage

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

Please avoid repeated freeze-thaw cycles.

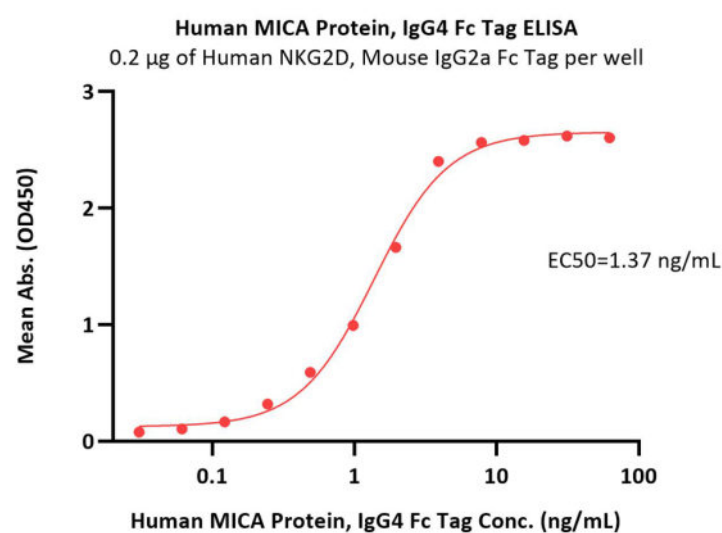
This product is stable after storage at:

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

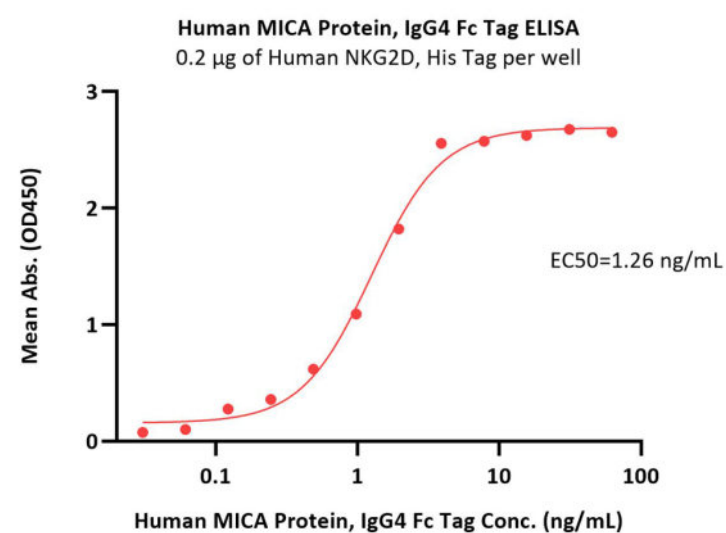
SDS-PAGE

Human MICA Protein, IgG4 Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

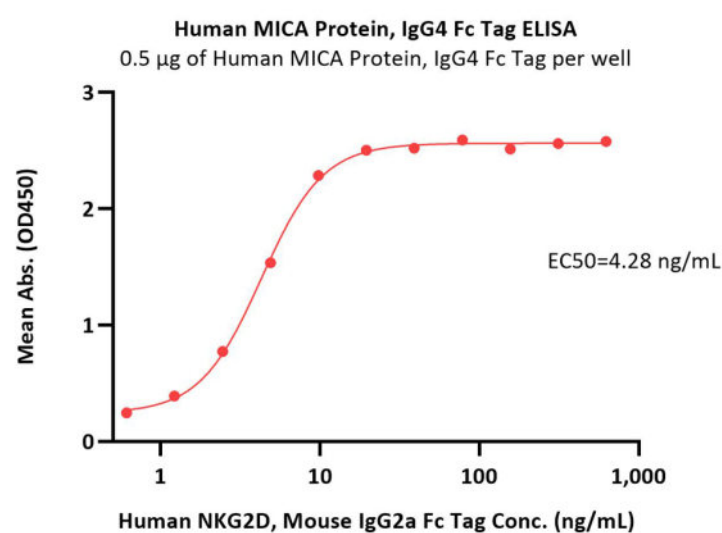
Bioactivity-ELISA



Immobilized Human NKG2D, Mouse IgG2a Fc Tag (Cat. No. NKD-H5259) at 2 µg/mL (100 µL/well) can bind Human MICA Protein, IgG4 Fc Tag (Cat. No. MIA-H5259) with a linear range of 0.1-4 ng/mL (QC tested).



Immobilized Human NKG2D, His Tag (Cat. No. NKD-H5245) at 2 µg/mL (100 µL/well) can bind Human MICA Protein, IgG4 Fc Tag (Cat. No. MIA-H5259) with a linear range of 0.1-4 ng/mL (Routinely tested).



Immobilized Human MICA Protein, IgG4 Fc Tag (Cat. No. MIA-H5259) at 5 µg/mL (100 µL/well) can bind Human NKG2D, Mouse IgG2a Fc Tag (Cat. No. NKD-H5259) with a linear range of 0.6-10 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.