

MICA active protein

MICA Protein, Human, Recombinant (His Tag)

CATALOG #
AAA258009

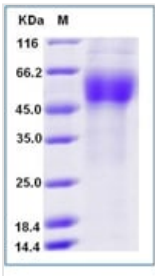
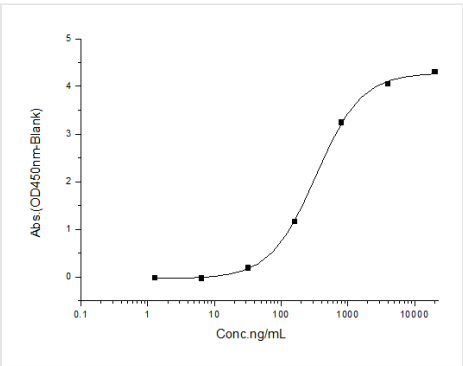
HOST
HEK293 Cells

PRODUCT SYNONYMS

MICA; MICA Protein; Human; Recombinant (His Tag); Human MICA Protein (His Tag); DAMA-345G11.2 Protein; FLJ36918 Protein; FLJ60820 Protein; MGC111087 Protein; MGC21250 Protein; MIC-A Protein; PERB11.1 Protein; MHC class I polypeptide-related sequence A; MICA active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Gln30 8
Species	Human
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Glu 24
Tag	C-His
Protein Construction	A DNA sequence encoding the human MICA (NP_001170990.1)(Met1-Gln308) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized MICA _h at 10ug/mL (100uL/well) can bind S4-Fc3L3-NKG2D. The EC ₅₀ of S4-Fc3L3-NKG2D is 200-450ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized MICA^h at 10 ug/mL (100 uL/well) can bind S4-Fc3L3-NKG2D, the EC₅₀ of S4-Fc3L3-NKG2D is 200-450 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for MICA active protein	Background: MHC class I chain-related molecules A (MICA) is one of the genes in the HLA class I region, which belongs to the MHC class I family. It is the member of the non-classical class I family that displays the greatest degree of polymorphism. The MICA protein product is expressed on the cell surface, although unlike canonical class I molecules do not seem to associate with beta-2-microglobulin. It is thought that MICA functions as a stress-induced antigen that is broadly recognized by NK cells, NKT cells, and most of the subtypes of T cells. The Natural killer group 2D (NKG2D), a C-type lectin-like activating immunoreceptor, is a receptor of MICA, which was detected on most gamma-delta T cells, CD8+ alpha-beta T cells, and natural killer (NK) cells. Effector cells from all these subsets could be stimulated by the ligation of NKG2D. Engagement of NKG2D activated cytolytic responses of gamma-delta T cells and NK cells against transfectants and epithelial tumor cells expressing MICA. The MICA system is a novel, avidin-free immunohistochemical detection system that provides a significant increase in sensitivity compared to traditional immunodetection systems.
References	Choy MK, et al. (2010) MICA polymorphism: biology and importance in immunity and disease. Trends Mol Med. 16(3): 97-106.Li J, et al. (2005) Distinct pattern of human Vdelta1 gammadelta T cells recognizing MICA. Cell Mol Immunol. 2(4): 253-8.Mangham DC, et al. (2000) MICA-a highly sensitive and avidin-free immunohistochemical detection system. Adv Anat Pathol. 7(6): 360-4.Bauer S, et al. (1999) Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. Science. 285(5428): 727-9.Groh V, et al. (1998) Recognition of stress-induced MHC molecules by intestinal epithelial gammadelta T cells. Science. 279: 1737-40.

NCBI AND UNIPROT INFORMATION

NCBI GI #	294660768
NCBI GeneID	100507436
NCBI Accession #	NP_001170990.1
NCBI GenBank Nucleotide #	NM_001177519.1
UniProt Accession #	Q29983; O60917; O60918; O60919; O60920; O60933; O77956; O78150; A8KQR0; A9LRW5; A9QVE0; B1VJF1
Molecular Weight	42,915 Da
NCBI Official Full Name	MHC class I polypeptide-related sequence A isoform 2 (MICA*00801)
NCBI Official Synonym Full Names	MHC class I polypeptide-related sequence A
NCBI Official Symbol	MICA
NCBI Official Synonym Symbols	MIC-A; PERB11.1
NCBI Protein Information	MHC class I polypeptide-related sequence A; HLA class I antigen; stress inducible class I homolog; MHC class I chain-related protein A
UniProt Protein Name	MHC class I polypeptide-related sequence A

UniProt Gene Name	MICA
UniProt Synonym Gene Names	MIC-A
UniProt Entry Name	MICA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/mica/258009>