

Active Recombinant Human MICA protein, His-GST-tagged

Cat. No. MICA-1778H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human MICA protein(Q29983)(24-307 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	24-307 aa
Form	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	MHC Class I Polypeptide Related Sequence A (MICA) is a stress-induced cell surface protein. It belongs to the MHC class I-like molecules but has distinct features. MICA is highly expressed on cells under stress, such as those with DNA damage or infected cells. Structurally, it has a domain structure that allows for interactions with other molecules. MICA can function as a ligand and binds to Killer Cell Lectin Like Receptor Subfamily D, Member 1 (KLRD1, also known as NKG2D) on the surface of natural killer (NK) cells and some T cells. This binding activates immune cells and enables them to participate in the body's immune surveillance and defense responses. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human MICA and recombinant human KLRD1. Briefly, MICA was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to KLRD1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with

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PBST and incubated for 1h with anti-MICA pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µ stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human MICA and recombinant human KLRD1 was shown, the EC50 for this effect is 0.582ug/mL.

Molecular Mass	62.7kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	MICA MHC class I polypeptide-related sequence A [Homo sapiens]
Official Symbol	MICA
Synonyms	MICA; MHC class I polypeptide-related sequence A; PERB11.1; HLA class I antigen; stress inducible class I homolog; MHC class I chain-related protein A; MIC-A; FLJ36918; FLJ60820; MGC21250; MGC111087;
Gene ID	100507436

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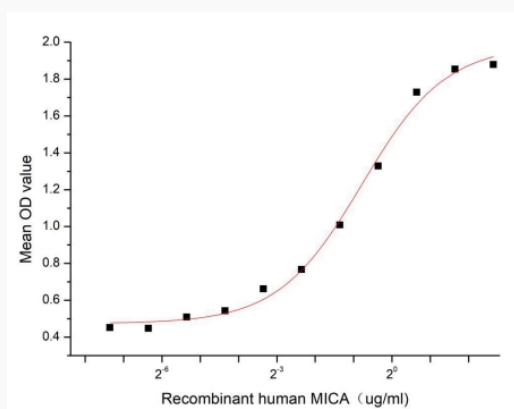
mRNA Refseq [NM_000247](#)

Protein Refseq [NP_000238](#)

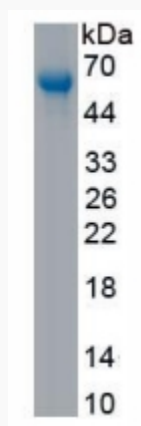
MIM [600169](#)

UniProt ID [Q29983](#)

Activity



SDS-PAGE



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