

Recombinant Human MICA (C-6His)

Catalog No: C489

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| Description | Recombinant Human MHC Class I Polypeptide-Related Sequence A is produced by our Mammalian expression system and the target gene encoding Glu24-Gln308 is expressed with a 6His tag at the C-terminus. |
| Source | Human Cells |
| Alternative name | MHC Class I Polypeptide-Related Sequence A; MIC-A; MICA; PERB11.1 |
| Predicted Molecular Weight | 25.1kDa |
| AP Molecular Weight | 31kDa, reducing conditions. |
| Accession No. | AAH16929.1 |
| Formulation | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. |
| Quality Control | Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below. |
| Storage | Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Background | MHC Class I Polypeptide-Related Sequence A (MICA) is a transmembrane glycoprotein that functions as a ligand for human NKG2D. Unlike classical MHC class I molecules, MICA does not form a heterodimer with beta-2-microglobulin. MICA shares 85% amino acid identity with a closely related protein, MICB. MICA acts as a stress-induced self-antigen that is recognized by NK cells, NKT cells, and most of the subtypes of T cells. As a Ligand for the KLRK1/NKG2D receptor, MICA binds to KLRK1 leads to cell lysis. MICA functions as an antigen for gamma delta T cells and is frequently expressed in epithelial tumors. MICA antigens are able to elicit the synthesis of alloantibodies in transplant recipients. Studies have shown that anti-MICA antibodies are associated with acute renal allograft rejection and failure. MICA recognition is involved in tumor surveillance, viral infections, and autoimmune diseases. |

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