
Product Data Sheet

Product Name: MICA Human, His
 Cat. No.: GP23924
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	MHC class I polypeptide-related sequence A; MIC-A; MICA; PERB11.1; HLA-B; AS; HLAB; HLAC; SPDA1; HLA-B73; HLA-B-7301.		
Amino Acid Sequence	MEPHSLRYNL TVLSWDGSVQ SGFLTEVHLD GQPFLRCDRQ KCR AKPQGWAE DVLGNKTW DRETRDLTGN GKDLRMTLAH IKDQKEGLHS LQEIRVCEIH EDNSTRSSQH FYYDGELFLSQNLETEEWTM PQSSRAQTLA MNVRNFLKED AMKTKTHYHA MHADCLQELR RYLKSGVVLR RTVPPMVNVTRSEASEGNIT VTCRASGFYP WNITLSWRQD GVSLSHDTQQ WGDVLPDGNG TYQTWVATRI CQGEEQRFTCYMEHSGNHST HPVPSLEHHH HHH.		
Formulation	MICA protein solution (0.25mg/ml) containing Phosphate buffered saline (pH7.4), 10% glycerol and 1mM DTT.		

Introduction

MICA (MHC class I chain-related gene A) is a transmembrane glycoprotein that functions as a ligand for human NKG2D. A closely related protein, MICB, shares 85% amino acid identity with MICA. These proteins are distantly related to the MHC class I proteins. They possess three extracellular Ig-like domains, but they have no capacity to bind peptide or interact with β 2-microglobulin. The genes encoding these proteins are found within the Major Histocompatibility Complex on human chromosome 6. The MICA locus is highly polymorphic with more than 50 recognized human alleles. MICA is absent from most cells but is frequently expressed in epithelial tumors and can be induced by bacterial and viral infections. MICA is a ligand for human NKG2D, an activating receptor expressed on NK cells, NKT cells, $\gamma\delta$ T cells, and CD8⁺ β T cells. Recognition of MICA by NKG2D results in the activation of cytolytic activity and/or cytokine production by these effector cells. MICA recognition is involved in tumor surveillance, viral infections, and

Caution: Product has not been fully validated for medical applications. For research use only.

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autoimmune diseases.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

MICA Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 283 amino acids (24-297aa) and having a molecular mass of 32.7kDa. MICA is fused to an 8 amino acid His-tag at C-terminus & purified by proprietary chromatographic techniques.

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