Recombinant Human MHC Class I Polypeptide-Related Sequence A, His (rHuMIC-A, His)

PrimeGene Technical Data Sheet

Catalog Number:	601-01H
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 36.9 kDa, a single non-glycosylated polypeptide chain containing 320 amino acids.
Quantity:	10μg/50μg/1000μg
AA Sequence:	**MSYYHHHHHH DYDIPTTENL YFQGAMDPEF** EPHSLRYNLT VLSWDGSVQS GFLAEVHLDG QPFLRYDRQK CRAKPQGQWA EDVLGNKTWD RETRDLTGNG KDLRMTLAHI KDQKEGLHSL QEIRVCEIHE DNSTRSSQHF YYDGELFLSQ NLETEEWTVP QSSRAQTLAM NVRNFLKEDA MKTKTHYHAM HADCLQELRR YLESGVVLRR TVPPMVNVTR SEASEGNITV TCRASSFYPR NIILTWRQDG VSLSHDTQQW GDVLPDGNGT YQTWVATRIC RGEEQRFTCY MEHSGNHSTH PVPSGKVLVL QSH**KLGCFGG**
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The specific activity is determined by binding MICA antibody in ELISA.
Physical Appearance:	Sterile Colorless liquid.
Formulation:	Supplied as a 0.2 μm filtered concentrated sterile solution in PBS, pH 7.4, and 8 M Urea.
Endotoxin:	Less than 1 EU/μg of rHuMIC-A, His as determined by LAL method.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Refer to lot specific COA for the Use by Date when stored at ≤ -20 ° C as supplied**.**
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Human MHC Class I Polypeptide-Related Sequence A

MIC-A (MHC class I chain-related gene A) is a single-pass type I member protein. It is expressed on the cell surface in gastric epithelium, endothelial cells and fibroblasts and in the cytoplasm in keratinocytes and monocytes. Additionally, MIC-A can be induced by bacterial and viral infections. It shares 85 % amino acid identity with MIC-B and they are distantly related to the MHC class I proteins. Because they possess three extracellular Ig-like domains, but unlike classical MHC class I molecules. They do not form a heterodimer with beta2 microglobulin, but bind as a monomer to a KLRK1/NKG2D that is an activating receptor expressed on NK cells, NKT cells, γδ T cells, and CD8+ αβ T cells. Recognition of MICA by NKG2D results in the activation of cytolytic activity and/or cytokine production by these effector cells. MIC-A recognition plays an important role in tumor surveillance, viral infections, and autoimmune diseases.

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