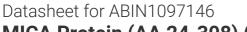
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# MICA Protein (AA 24-308) (His tag)



#### Overview

Quantity:	50 μg
Target:	MICA
Protein Characteristics:	AA 24-308
Origin:	Human
Source:	Human Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MICA protein is labelled with His tag.

#### **Product Details**

Purpose:	Recombinant Human MHC Class I Polypeptide-Related Sequence A/MICA (C-6His)
Sequence:	EPHSLRYNLT VLSWDGSVQS GFLTEVHLDG QPFLRCDRQK CRAKPQGQWA EDVLGNKTWD
	RETRDLTGNG KDLRMTLAHI KDQKEGLHSL QEIRVCEIHE DNSTRSSQHF YYDGELFLSQ
	NLETEEWTMP QSSRAQTLAM NVRNFLKEDA MKTKTHYHAM HADCLQELRR YLKSGVVLRR
	TVPPMVNVTR SEASEGNITV TCRASGFYPW NITLSWRQDG VSLSHDTQQW GDVLPDGNGT
	YQTWVATRIC QGEEQRFTCY MEHSGNHSTH PVPSGKVLVL QSHWQVDHHH HHH
Characteristics:	Recombinant Human MHC Class I Polypeptide-Related Sequence A/MICA (C-6His)
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered
Endotoxin Level:	Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test

## Target Details

Target:	MICA
Alternative Name:	MHC Class I Polypeptide-Related Sequence A/MICA (MICA Products)
Background:	Recombinant Human MHC Class I Polypeptide-Related Sequence A/MICA is produced with our
	mammalian expression system in human cells. The target protein is expressed with sequence
	(Glu24-Gln308) of Human MICA fused with a polyhistidine tag at the C-terminus.
	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 $\beta\mbox{-}2\mbox{-microglobulin}.$ MICA shares 85 % AA 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 $\gamma\deltaT$ 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.
Molecular Weight:	33.87 kDa
UniProt:	Q29983
Pathways:	Activation of Innate immune Response, Transition Metal Ion Homeostasis, Human Leukocyte
	Antigen (HLA) in Adaptive Immune Response
Application Details	
Restrictions:	For Research Use only
Handling	
Format:	Lyophilized
Reconstitution:	It is not recommended to reconstitute to a concentration less than 100 μg/mL.
	Dissolve the lyophilized protein in ddH2O.
	Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Buffer:	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C

### Handling

Storage Comment:

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.