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Datasheet for ABIN1097146

**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 CRAKPQQQWA EDVLGNKTWD RETRDLTGNG KDLRMTLAHI KDQKEGLHSL QEIRVCEIHE DNSTRSSQHF YYDGELFLSQ NLETEEWTMP QSSRAQTLAM NVRNFLKEDA MKTKTHYHAM HADCLQELRR YLKSGVVLRR TVPPMVNVTR SEASEGNITV TCRASGFYPW NITLSWRQDG VLSHDTQQW GDVLPDGNGT YQTWVATRIC QGEEQRFTCY MEHSGNHSTH PVPSPGKVLVL 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 ( <a href="#">MICA Products</a> )
Background:	<p>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.</p> <p>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 <math>\beta</math>-2-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 <math>\gamma</math> <math>\delta</math> 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.</p>
Molecular Weight:	33.87 kDa
UniProt:	<a href="#">Q29983</a>
Pathways:	<a href="#">Activation of Innate immune Response</a> , <a href="#">Transition Metal Ion Homeostasis</a> , <a href="#">Human Leukocyte Antigen (HLA) in Adaptive Immune Response</a>

## Application Details

Restrictions:	For Research Use only
Handling	
Format:	Lyophilized
Reconstitution:	<p>It is not recommended to reconstitute to a concentration less than 100 <math>\mu</math>g/mL.</p> <p>Dissolve the lyophilized protein in ddH<sub>2</sub>O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
Buffer:	Lyophilized from a 0.2 $\mu$ m 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

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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.