Human MICA Protein (His Tag)

Catalog Number: 12302-H08H

General Information

Gene Name Synonym:
DAMA-345G11.2; FLJ36918; FLJ60820; MGC111087; MGC21250; MIC-A; PERB11.1

Protein Construction:
A DNA sequence encoding the human MICA (AAH16929.1) extracellular domain (Met 1-Gln 308) was fused with a polyhistidine tag at the C-terminus.

Source: Human
Expression Host: Human Cells

QC Testing
Purity: > 97 % as determined by SDS-PAGE

Endotoxin:
< 1.0 EU per μg of the protein as determined by the LAL method

Stability:
Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 24

Molecular Mass:
The recombinant human MICA consists of 296 amino acids and has a predicted molecular mass of 34 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh MICA is approximately 55-65 kDa due to glycosylation.

Formulation:
Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:
Store it under sterile conditions at -20 °C to -80 °C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:
Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:

Protein Description

MHC class I chain-related molecules A (MICA) is one of the genes in the HLA class I region, which belongs to MHC class I family. It is the member of the non-classical class I family that displays the greatest degree of polymorphism. The MICA protein product is expressed on the cell surface, although unlike canonical class I molecules does not seem to associate with beta-2-microglobulin. It is thought that MICA functions as a stress-induced antigen that is broadly recognized by NK cells, NKT cells, and most of the subtypes of T cells. The Natural killer group 2D (NKG2D), a C-type lectin-like activating immunoreceptor, is a receptor of MICA, which was detected on most gammadelta T cells, CD8+ alphabeta T cells, and natural killer (NK) cells. Effector cells from all these subsets could be stimulated by ligation of NKG2D. Engagement of NKG2D activated cytolytic responses of gammadelta T cells and NK cells against transfectants and epithelial tumor cells expressing MICA. The MICA system is a novel, avidin-free immunohistochemical detection system that provides a significant increase in sensitivity compared to traditional immunodetection systems.

References