Human MICB Protein (His & Fc Tag)

Catalog Number: **10759-H03H**

General Information

Gene Name Synonym:

PERB11.2

Protein Construction:

A DNA sequence encoding the extracellular domain of human MICB (NP_005922.2) (Met 1-Gly 298) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Immobilized human His-NKG2D (78-216) (Cat:10575-H07B) at 10 μg/ml (100 μl/well) can bind human MICB-Fch, The EC_{50} of human MICB-Fch is 15.9-37.1 ng/ml.

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 ℃

Predicted N terminal: Ala 23

Molecular Mass:

The recombinant human MICB/Fc is a disulfide-linked homodimer. The reduced monomer consists of 524 amino acids and has a predicted molecular mass of 59.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh MICB/Fc monomer is approximately 80-90 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:

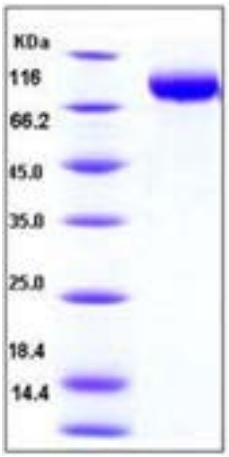
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

MHC class I polypeptide-related sequence B, also known as MICB, is a heavily glycosylated protein serving as a ligand for the type II receptor NKG2D. MICB shares 85% amino acid identity with MICA, a closely related protein, both of which contain three extracellular immunoglobulin-like domains, but without capacity to bind peptide or interact with beta-2-microglobulin. acting as a stress-induced self-antigen, binding of MICB to the NKG2D receptor activates the cytolytic response of natural killer (NK) cells, CD8+αβ T cells, and γδ T cells on which the receptor is expressed. MICA/B are minimally expressed on normal cells, but are frequently expressed on epithelial tumors and can be induced by bacterial and viral infections. MICA/B recognition thus is involved in tumor surveillance, viral infections, and autoimmune diseases.

References

1.Bauer, S. et al., 1999, Science. 285:727-729. 2.Braud, V.M. et al., 1999, Curr. Opin. Immunol. 11: 100-108. 3.Groh, V. et al., 2001, Nature Immunol. 2: 255-260.