

# Human MICB Protein

Cat. No. MIC-HM20B

## Description

<b>Source</b>	Recombinant Human MICB Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Ala23-Gly298.
<b>Accession</b>	Q29980-1
<b>Molecular Weight</b>	The protein has a predicted MW of 58.21 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

MICB (MHC class I chain-related gene B) is a transmembrane glycoprotein that functions as a ligand for NKG2D. A closely related protein, MICA, shares 85% amino acid identity with MICB. MICB Seems to have no role in antigen presentation. Acts as a stress-induced self-antigen that is recognized by gamma delta T cells. Ligand for the KLRK1/NKG2D receptor. Binding to KLRK1 leads to cell lysis.

## Assay Data

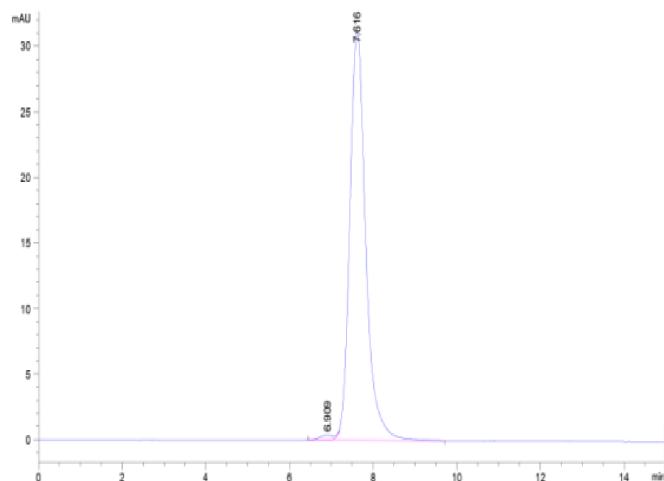
### Bis-Tris PAGE



Human MICB on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

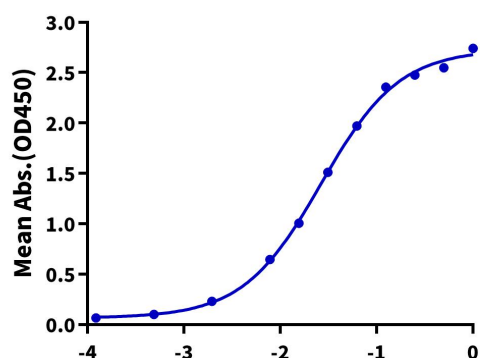
Assay Data



The purity of Human MICB is greater than 95% as determined by SEC-HPLC.

ELISA Data

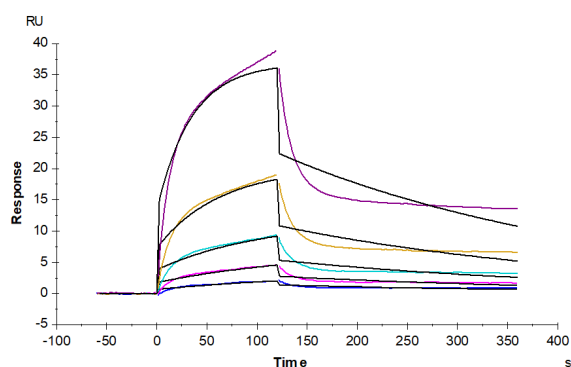
**Human MICB, hFc Tag ELISA**  
0.2 µg Human MICB, hFc Tag Per Well



Immobilized Human MICB, hFc Tag at 2 µg/ml (100 µl/Well) on the plate. Dose response curve for Biotinylated Anti-MICB Antibody, hFc Tag with the EC<sub>50</sub> of 26.6 ng/ml determined by ELISA (QC Test).

Log Biotinylated Anti-MICB Antibody, hFc Tag Conc. (µg/ml)

SPR Data



Human MICB, hFc Tag captured on CM5 Chip via Protein A can bind Human NKG2D, His Tag with an affinity constant of 95.15 nM as determined in SPR assay (Biacore T200).