

# Human MICB Protein

Cat. No. MIC-HM40B



## Description

<b>Source</b>	Recombinant Human MICB Protein is expressed from HEK293 with His tag and Avi 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 34.4 kDa. Due to glycosylation, the protein migrates to 48-65 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

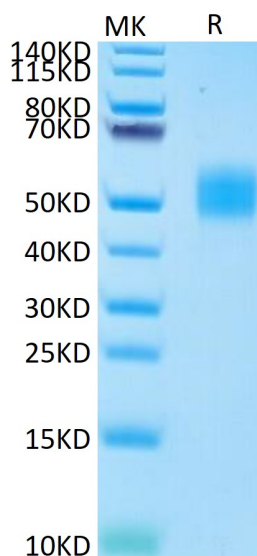
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein 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

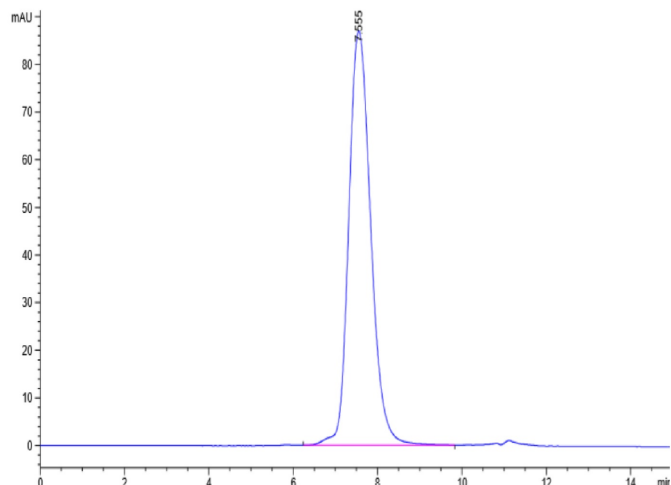
### Bis-Tris PAGE



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

### SEC-HPLC

Assay Data

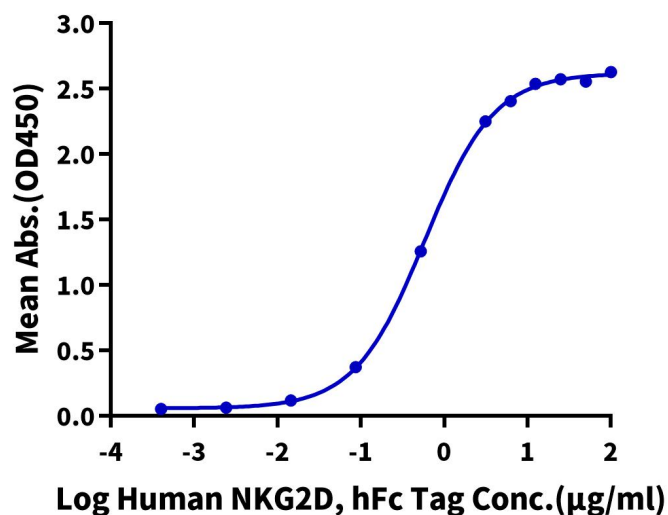


The purity of Human MICB is greater than 95% as determined by SEC-HPLC.

ELISA Data

**Human MICB, His Tag ELISA**

0.5µg Human MICB, His Tag Per Well

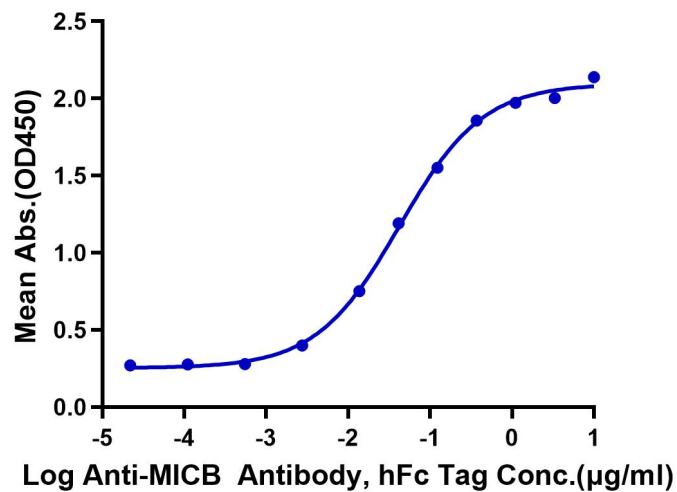


Immobilized Human MICB, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human NKG2D, hFc Tag with the EC50 of 0.58µg/ml determined by ELISA (QC Test).

ELISA Data

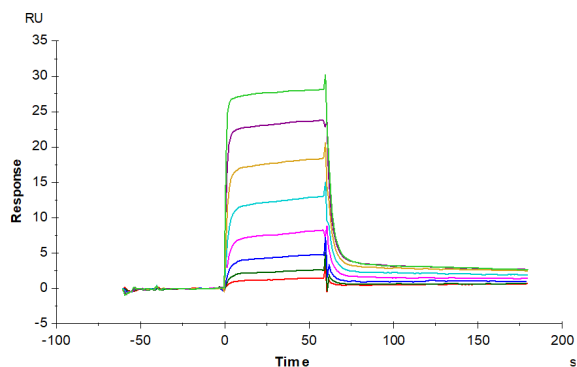
## Assay Data

## Human MICB, His Tag ELISA

0.1  $\mu\text{g}$  Human MICB, His Tag Per Well

Immobilized Human MICB, His Tag at  $1\mu\text{g}/\text{ml}$  ( $100\mu\text{l}/\text{well}$ ) on the plate. Dose response curve for Anti-MICB Antibody, hFc Tag with the  $\text{EC}_{50}$  of  $42.4\text{ng}/\text{ml}$  determined by ELISA.

## SPR Data



Human NKG2D, hFc Tag captured on CM5 Chip via Protein A can bind Human MICB, His Tag with an affinity constant of  $83.31\text{ nM}$  as determined in SPR assay (Biacore T200).