Data Sheet (Cat.No.TMPK-00246)

TargetMol

MICB Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	MIC-B;MICB;PERB11.2
Protein Construction:	Ala23-Gly298
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q29980
Molecular Weight:	34.4 kDa (predicted). Due to glycosylation, the protein migrates to 48-65 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	1. Immobilized Anti-MICB Antibody, hFc Tag at 5μg/ml (100μl/Well) on the plate. Dose response curve for Biotinylated Human MICB, His Tag with the EC50 of 0.43μg/ml determined by ELISA (QC Test). 2. Human NKG2D, hFc Tag captured on CM5 Chip via Protein A can bind Biotinylated Human MICB, His Tag with an affinity constant of 60.38 nM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

Reference

Spear P, et al. NKG2D ligands as therapeutic targets[J]. Cancer immunity: a journal of the Academy of Cancer Immunology, 2013, 13(2):8.

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