Product Name: Human MICB Protein Dimer, His-Avi Tag

Product Code: CSP-26328-03

FOR RESEARCH USE ONLY (RUO)

Protein Name: MICB, Protein Dimer

Alternate Name(s): PERB11.2

Expression Host
HEK293T

Amino Acid Range
A23 - D309

Protein Construct
MICB dimer protein contains a MICB extracellular domain (UniProt# Q29980) fused with a proprietary cis-dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
85 kDa. Migration range of the dimer with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

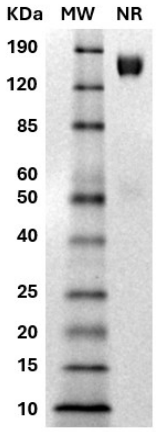
Shipping Conditions
Product is shipped at ambient temperature.

Formulation
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4 with 10% trehalose as a protectant

Stability & Storage
On receipt, store at -20 C or lower for long term storage.
This product is stable at:
-20 to -70 C for 12 months from date of receipt in lyophilized state.
-70 C for 3 months after reconstitution under sterile conditions.
Avoid repeated freeze-thaw cycles

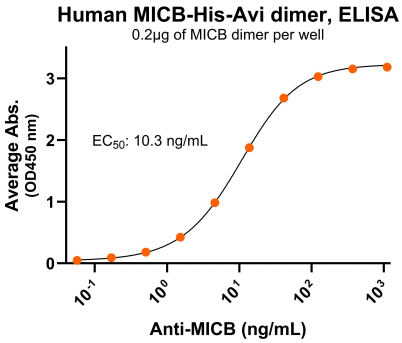
Reconstitution of lyophilized product
For best performance, we strongly recommend you reconstitute the lyophilized product with deionized water to a stock solution of 500 μg/mL.
Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing.
For 25μg product size:
Reconstitute with 50 μL sterile deionized water.
For 100μg product size:
Reconstitute with 200 μL sterile deionized water.

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: MICB dimer under non-reduced condition
Migration range of the dimer with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE

Antibody Binding



Immobilized human MICB-His dimer protein (CSP-26328-03) at 2 μg/mL (100 μL/well) can bind anti-human MICB monoclonal antibody with half maximal effective concentration (EC50) range of 5.2-20.6 ng/mL (QC tested).

Background

Human MHC class I polypeptide-related sequence B (MICB) is a MHC class I family protein. MICB is also known as PERB11.2. It is a type 1 transmembrane protein. MICB contains an extracellular domain with an α1α2α3 domain followed by a transmembrane domain and cytoplasmic domain. MICB is a stress-induced ligand for the activating receptor NKG2D (KLRK1). Like MICA, MICB plays a key role in immune surveillance by activating NK cells and cytotoxic T cells in response to cellular stress, infection, or malignant transformation. MICB expression is highly restricted in healthy tissues but is strongly induced in stressed, infected, and malignant cells.. MICB is highly detected in many tumor tissues which has made MICB an emerging target for immunotherapy and cell therapy.