
Product Name: Human MICB Protein Dimer, His Tag

Product Code: CSP-26328-01

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 His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight

82 kDa. Migration range of the dimer 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

Frozen Ice Packs

Stability & Storage

-20°C

Formulation

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

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.

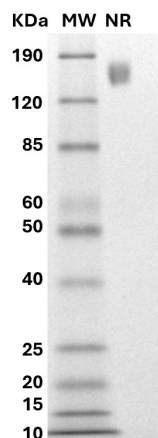
For 25µg product size:

Reconstitute with 50 µL sterile deionized water.

For 100µg product size:

Reconstitute with 200 µL sterile deionized water.

SDS-PAGE

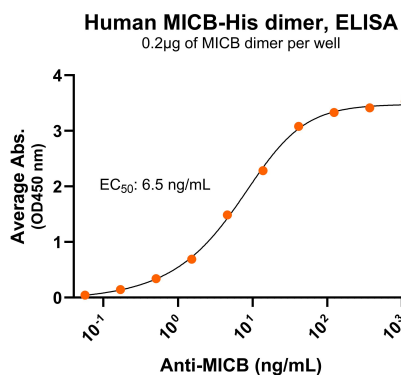


MW: Molecular Weight marker reduced condition

NR: MICB dimer under non-reduced condition

Migration range of the dimer under non-reducing condition is 120-190 kDa on SDS PAGE

Antibody Binding



Immobilized human MICB-His dimer protein (CSP-26328-01) at 2 µg/mL (100 µL/well) can bind anti-human MICB monoclonal antibody with half maximal effective concentration (EC₅₀) range of 3.3-13 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 $\alpha 1\alpha 2\alpha 3$ 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.