

## MICB Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78174
Synonyms:	MICB; MIC-B; PERB11.2
Species:	Human
Source:	HEK293
Accession:	Q29980 (A23-G298)
Gene ID:	4277
Molecular Weight:	48-65 kDa

### PROPERTIES

<b>Biological Activity</b>	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 EC <sub>50</sub> of 0.43µg/ml determined by ELISA.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	MICB Protein does not play a role in antigen presentation; instead, it functions as a stress-induced self-antigen, recognized by gamma delta T cells. It serves as a ligand for the KLRK1/NKG2D receptor, and the binding of MICB to KLRK1 results in cell lysis. In contrast to classical MHC class I molecules, MICB does not form a heterodimer with beta-2-microglobulin but binds as a monomer to a KLRK1/NKG2D homodimer. The interaction between KLRK1 and MICB involves the formation of a complex with HCST/DAP10, where KLRK1 binds MICB, and HCST acts as an adapter molecule facilitating signal transduction. The receptor-ligand interaction induces the clustering of both proteins in ordered structures known as immune synapses and promotes their intercellular transfer, which is associated with a reduction in the cytotoxicity of KLRK1-expressing cells.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA