

# Product Data Sheet

## MICB Protein, Human (HEK293, hFc)

Cat. No.:	HY-P701023
Synonyms:	MICB; MIC-B; PERB11.2
Species:	Human
Source:	HEK293
Accession:	Q29980-1 (A23-G298)
Gene ID:	4277
Molecular Weight:	70-80 kDa

PROPERTIES	
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Biological Activity	Immobilized Human MICB, hFc Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Biotinylated Anti-MICB Antibody, hFc Tag with the EC <sub>50</sub> of 54.9ng/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

# BackgroundMICB Protein does not play a role in antigen presentation; instead, it functions as a stress-induced self-antigen, recognized<br/>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<br/>lysis. In contrast to classical MHC class I molecules, MICB does not form a heterodimer with beta-2-microglobulin but binds<br/>as a monomer to a KLRK1/NKG2D homodimer. The interaction between KLRK1 and MICB involves the formation of a<br/>complex with HCST/DAP10, where KLRK1 binds MICB, and HCST acts as an adapter molecule facilitating signal transduction.<br/>The receptor-ligand interaction induces the clustering of both proteins in ordered structures known as immune synapses<br/>and promotes their intercellular transfer, which is associated with a reduction in the cytotoxicity of KLRK1-expressing cells.

### Caution: Product has not been fully validated for medical applications. For research use only.

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