MICB Protein, Human (HEK293, His-Fc)

Cat. No.:	HY-P73293
Synonyms:	MHC class I polypeptide-related sequence B; MIC-B; PERB11.2
Species:	Human
Source:	HEK293
Accession:	Q29980 (M1-G298)
Gene ID:	4277
Molecular Weight:	80-90 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	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.

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

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