MICB
Recombinant Human MICB

Catalog No.	CSI20146A	**Quantity:**	10 µg
	CSI20146B		50 µg
	CSI20146C		1.0 mg

Description: Recombinant Human MICB is a single non-glycosylated polypeptide chain containing 287 amino acids.
Background: MIC-B (MHC class I chain-related gene B) is a single-pass type I member protein. It is widely expressed in many, but not all, epithelial tumors of lung, breast, kidney, ovary, prostate and colon. In addition to this, it is produced by hepatocellular carcinomas, which is only in tumor cells but not in surrounding non-cancerous tissue and can be induced by bacterial and viral infections. MIC-B shares 85% amino acid identity with MIC-A and they are distantly related to the MHC class I proteins. Because they possess three extracellular Ig-like domains, but unlike classical MHC class I molecules, they do not form a heterodimer with beta2 microglobulin, but bind as a monomer to a KLRK1/NKG2D that is an activating receptor expressed on NK cells, NKT cells, γδ T cells, and CD8+ αβ T cells. Recognition of MIC-B by NKG2D results in the activation of cytolytic activity and/or cytokine production by these effector cells. MIC-B recognition plays an important role in tumor surveillance, viral infections, and autoimmune diseases.

Gene ID: 4277

Source: *E. coli*

Molecular Weight: 32.8 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 150 mM NaCl, pH 8.0.

Purity: >95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: <1 EU/µg of recombinant human MICB as determined by LAL method.

Biological Activity: Full biologically active when compared to the standard. The specific activity is determined by its ability to bind MICB antibody in an ELISA.

Amino Acid Sequence: AEPHSLRYNL MVLSQDESVQ SGFLAEGHLD GQPFLRYDRQ KRRAKPQGQW AEDVLGAKTW DTETEDLTEN GQDLRRTLTH IKDQKGGLHS LQEIRVCEIH EDSSTRGSRH FYYDGELFLS QNLETQESTV PQSSRAQTLA MNVTNFWKED AMKTKTHYRA MQADCLQKLQ RYLKSGVAIR RTVPPMVNVT CSEVSEGNIT VTCRASSFYP RNITLTWRQD GVSLSHNTQQ WGDVLPDGNG TYQTWVATRI RQGEEQRFTC YMEHSGNHGT HPVPSGKVLV LQSQRTD

Reconstitution: **Centrifuge vial prior to opening.** Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: Stable at 2-8°C, but best kept desiccated -20°C. Upon reconstitution, stable for up to 1 week at 2-8°C. For longer term, store in working aliquots below -20°C. **Avoid repeated**

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