

# Recombinant Human MHC Class I Polypeptide-Related Sequence B

Catalog No: #AP60442

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

Package Size: #AP60442-1 10ug #AP60442-2 100ug #AP60442-3 500ug

## Description

|                 |  |
|-----------------|--|
| Product Name    | Recombinant Human MHC Class I Polypeptide-Related Sequence B   |
| Host Species    | Escherichia coli.  |
| Purification    | > 95 % by SDS-PAGE and HPLC analyses.  |
| Calculated MW   | Approximately 32.8 kDa, a single non-glycosylated polypeptide chain containing 287 amino acids.  |
| Target Sequence | AEPHSLRYNL MVLSQDESVD SGFLAEGHLD GQPFLRYDRQ KRRAKPQQQW AEDVLGAKTW<br>DTETEDLTEN GQDLRRTLTH IKDQKGGHLS LQEIRVCEIH EDSSTRGSRH FYYDGELFLS QNLETQESTV<br>PQSSRAQTLA MNVTNFWKED AMKTKTHYRA MQADCLQKLQ RYLKSGVAIR RTVPPMVNVT<br>CSEVSEGNIT VTCRASSFYP RNITLTWRQD GVSLSHNTQQ WGDVLPDNG TYQTWWATRI<br>RQGEEQRFTC YMEHSGNHGT HPVPSGKVLV LQSQRD  |
| Formulation     | Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 150 mM NaCl, pH 8.0.   |
| Storage         | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.<br><input type="checkbox"/> A minimum of 12 months from date of receipt, when stored at &le;-20 °C as supplied.<br><input type="checkbox"/> 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br><input type="checkbox"/> 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

## 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,  $\gamma\delta$  T cells, and CD8+  $\alpha\beta$  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.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.