

## MIP-3 beta/CCL19 Protein, Human

<b>Cat. No.:</b>	HY-P702526
<b>Synonyms:</b>	beta chemokine exodus-3; Beta-chemokine exodus-3; CC chemokine ligand 19; C-C motif chemokine 19; CCL19; chemokine (C-C motif) ligand 19; CKb11; EB11-ligand chemokine; ELC; ELCMIP-3-beta; Epstein-Barr virus-induced molecule 1 ligand chemokine; exodus-3; Macrophage inflammatory protein 3 beta; macrophage inflammatory protein 3-beta; MGC34433; MIP3 beta; MIP-3 beta; MIP-3b; MIP3BCK beta-11; SCYA19EB11 ligand chemokine; small inducible cytokine subfamily A (Cys-Cys), member 19; Small-inducible cytokine A19
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	Q99731 (G22-S98)
<b>Gene ID:</b>	6363
<b>Molecular Weight:</b>	Approximately 11 kDa

### PROPERTIES

<b>AA Sequence</b>	G T N D A E D C C L    S V T Q K P I P G Y    I V R N F H Y L L I    K D G C R V P A V V F T T L R G R Q L C    A P P D Q P W V E R    I I Q R L Q R T S A    K M K R R S S
<b>Biological Activity</b>	Measured by its ability to chemoattract Jurkat cells. The ED <sub>50</sub> for this effect is 27.79 ng/mL, corresponding to a specific activity is 3.598×10 <sup>4</sup> U/mg.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4, 8% trehalose.
<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 PBS. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years from date of receipt. 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>	MIP-3 beta/CCL19 Protein is suggested to have a multifaceted role, extending beyond inflammatory and immunological responses to encompass normal lymphocyte recirculation and homing. Its potential involvement in the trafficking of T-cells in the thymus, as well as the migration of both T-cells and B-cells to secondary lymphoid organs, underscores its importance in orchestrating cellular movements crucial for immune surveillance and responses. Acting through its binding to the
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chemokine receptor CCR7, MIP-3 beta/CCL19 demonstrates potent chemotactic activity specifically for T-cells and B-cells, excluding granulocytes and monocytes from its recruitment. Furthermore, it binds to the atypical chemokine receptor ACKR4, facilitating the recruitment of beta-arrestin (ARRB1/2) to ACKR4. Notably, MIP-3 beta/CCL19 interacts with TNFAIP6 via its Link domain, adding another layer to its complex network of molecular associations. The diverse functions of MIP-3 beta/CCL19 highlight its pivotal role in immune cell dynamics and underscore the need for comprehensive exploration into its regulatory mechanisms.

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

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