



6352 CORTE DEL ABETO, STE B  
CARLSBAD, CA 92011 USA  
01.858.642.1988 • WWW.ATSBIO.COM

### Macrophage Inflammatory Protein-3 Beta Human Recombinant (CCL19) CHEMOKINE

**Catalog Number:** PRP-527  
**Quantity:** 5 micrograms, 20 micrograms, 1 milligram  
**Format:** Sterile-filtered white lyophilized (freeze-dried) powder  
**Host:** *E. coli*

#### Background:

Chemokine (C-C motif) ligand 19 (CCL19) is a small cytokine belonging to the CC chemokine family that is also known as EBI1 ligand chemokine (ELC) and macrophage inflammatory protein-3-beta (MIP-3-beta). CCL19 is expressed abundantly in thymus and lymph nodes, with moderate levels in trachea and colon and low levels in stomach, small intestine, lung, kidney and spleen. The gene for CCL19 is located on human chromosome 9. This chemokine elicits its effects on its target cells by binding to the chemokine receptor CCR7. It attracts certain cells of the immune system, including dendritic cells and antigen-engaged B cells.

#### Specificity and Preparation:

Macrophage Inflammatory Protein-3 beta human recombinant (CCL19) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 77 amino acids and having a molecular mass of 8809 Dalton. The MIP-3b is purified by proprietary chromatographic techniques. Purity is greater than 98.0% as determined by RP-HPLC and SDS-PAGE.

The sequence of the first five N-terminal amino acids was determined and was found to be, Gly-Thr-Asn-Asp-Ala.

The activity of CCL19 is calculated by the ability to chemoattract human T cells using a concentration of 10-50 ng/ml corresponding to a specific activity of 20,000-100,000 IU/mg.

#### Usage and Storage:

It is recommended to reconstitute the lyophilized material in sterile 18M $\Omega$ -cm H<sub>2</sub>O at not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

Lyophilized material although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution material should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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