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Certificate of Analysis and Data Sheet

Recombinant Mouse Macrophage Inflammatory protein-3 beta (CCL19)

Catalog No.
228-11120

Source
Escherichia Coli.

Synonyms

Small inducible cytokine A19, CCL19, Macrophage inflammatory protein 3 beta, MIP-3- beta, EBI1-ligand chemokine, ELC, Beta chemokine exodus-3, CK beta-11, chemokine (C-C motif) ligand 19, CKb11, MIP3B, MIP-3b, SCYA19, MGC34433, Epstein-Barr virus-induced molecule 1 ligand chemokine, EBI1-ligand chemokine.

Introduction

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 chemokine receptor CCR7. It attracts certain cells of the immune system, including dendritic cells and antigen-engaged B cells.

Description

Macrophage Inflammatory Protein-3 beta Mouse Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 83 amino acids and having a molecular mass of 9216 Dalton. The MIP-3b is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The CCL19 was lyophilized from a concentrated (1mg/ml) solution in water containing no additives.

Purity

Greater than 95.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Amino Acid Sequence

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

Biological Activity

The Activity of CCL19 is calculated by the ability to chemoattract Human mature dendritic cells using a concentration of 10-100 ng/ml.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.91 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of MIP-3b as a Reference Standard.

Solubility

It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-3b in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized MIP-3b although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL19 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).

Please prevent freeze-thaw cycles.

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