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1. Description

Products Human CCL19 (MIP-3 β), research grade.
Recombinant human chemokine (C-C motif) ligand 19 or inflammatory protein 3 β .

Content in μ g	Order no.
10	130-105-744
25	130-105-743
100	130-093-969

Biological activity The ED₅₀ is typically between 5–50 ng/mL.

▲ **Note:** The ED₅₀ is determined by Transwell[®] chemotaxis assay using MEC-1 cells (provided by DSMZ). Migration rates are expressed as a percentage of the starting cell population and were determined by flow cytometry using the MACSQuant[®] Analyzer.

Primary structure Single, non-glycosylated polypeptide chain (98 amino acid residues) with N-terminal methionine.

Molecular mass 8.8 kDa.

Source Produced in *E. coli*.

Product format Lyophilized from a filtered (0.2 μ m) buffer solution.

Stabilizer None.

Purity >95% as determined by SDS-PAGE analysis.

Endotoxin level Low endotoxin (<1.0 EU/ μ g cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.

Storage Lyophilized Human CCL19 (MIP-3 β), research grade should be stored at –20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at –20 °C or below. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended to reconstitute lyophilized Human CCL19 (MIP-3 β), research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 100 μ L. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.

1.1 Background information

Chemokine (C-C motif) ligand 19 (CCL19) also known as macrophage inflammatory protein 3 β (MIP-3 β) belongs to the family of CC-motif chemokines, characterized by four highly conserved cysteine residues. CCL19 is a chemoattractant involved in the regulation of lymphocyte circulation and homing in the thymus and secondary lymphoid organs. It is expressed in thymus and lymph nodes and binds to chemokine receptor CCR7, which is expressed on lymphocytes, such as central memory T cells, and myeloid progenitors. CCL19 is also important for migration of antigen presenting cells, such as dendritic cells and antigen-loaded B cells. Human MIP-3 β is active on murine cells.

1.2 Applications

Human CCL19 (MIP-3 β) can be used for a variety of applications, including:

- Study of lymphoid and myeloid cell migration via chemotactic assays.
- Maturation of dendritic cells and induction of T cell proliferation.

Optimal concentration for a specific application should be determined by a dose-response experiment.

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