Recombinant Human CCL19/MIP-3β
Catalog Number: 361-MI

DESCRIPTION

Source
E. coli-derived
Gly22-Ser98
Accession # Q99731.1

N-terminal Sequence Analysis
Gly22

Predicted Molecular Mass
8.8 kDa

SPECIFICATIONS

Activity
Measured by its ability to chemotact 5-10 day cultured human peripheral blood lymphocytes (PBL).
The ED₅₀ for this effect is typically 0.1-0.3 µg/mL.

Measured by its ability to chemotact BaF3 mouse pro-B cells transfected with human CCR7.
The ED₅₀ for this effect is typically 3-15 ng/mL.

Endotoxin Level
<0.10 EU per 1 µg of the protein by the LAL method.

Purity
>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation
Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution
Reconstitute at 25 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MIP-3β, also known as ELC (EBI1-Ligand Chemokine), is one of many novel β chemokines identified through bioinformatics. MIP-3β cDNA encodes a 98 amino acid (aa) residue precursor protein with a predicted 21 aa residue signal peptide that is cleaved to form the 77 aa residue mature secreted protein. MIP-3β is distantly related to other β chemokines (20-30% aa sequence identity) and the gene for MIP-3β has been mapped to chromosome 9p13 rather than chromosome 17 where the genes for many human β chemokines are clustered. MIP-3β has been shown to be constitutively expressed in various lymphoid tissues (including thymus, lymph nodes, appendix and spleen). The expression of MIP-3β is down-regulated by the anti-inflammatory cytokine IL-10. Recombinant MIP-3β has been shown to be chemotactic for cultured human lymphocytes. MIP-3β has also been shown to be a unique functional ligand for CCR-7 (previously referred to as the Epstein-Barr virus-induced gene 1 (EBI1) orphan receptor), a chemokine receptor that is expressed in various lymphoid tissues and activated B and T lymphocytes. EBI1 is strongly up-regulated in B cells infected with Epstein-Barr virus and T cells infected with herpesvirus 6 or 7.

References: