

DESCRIPTION

Source *E. coli*-derived human CCL19/MIP-3 beta protein
Gly22-Ser98
Accession # Q99731.1

N-terminal Sequence Analysis Gly22

Predicted Molecular Mass 8.8 kDa

SPECIFICATIONS

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

Endotoxin Level <0.10 EU per 1 μ g 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 μ m 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 μ g/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-3 β , also known as ELC (EBI1-Ligand Chemokine), is one of many novel β chemokines identified through bioinformatics. MIP-3 β 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-3 β is distantly related to other β chemokines (20-30% aa sequence identity) and the gene for MIP-3 β has been mapped to chromosome 9p13 rather than chromosome 17 where the genes for many human β chemokines are clustered. MIP-3 β has been shown to be constitutively expressed in various lymphoid tissues (including thymus, lymph nodes, appendix and spleen). The expression of MIP-3 β is down-regulated by the anti-inflammatory cytokine IL-10. Recombinant MIP-3 β has been shown to be chemotactic for cultured human lymphocytes. MIP-3 β 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:

1. Yoshida, R. *et al.* (1997) J. Biol. Chem. **272**:13803.