Recombinant Human CCL23/MPIF-1

Catalog Number: 371-MP

DESCRIPTION

Source	*E. coli*-derived human CCL23/MPIF-1 protein Arg22-Asn120 Accession # P55773
N-terminal Sequence Analysis	Arg22
Predicted Molecular Mass	11.5 kDa

SPECIFICATIONS

Activity	Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CCR1. The ED_{50} for this effect is 0.02-0.1 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.
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 50 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

Myeloid progenitor inhibitory factor (MPIF-1), also known as CKβ8 and MIP-3, is a member of the CC chemokine subfamily that is designated CCL23. Alternative splicing of the MPIF-1 gene results in two mRNAs that encode a short (CKβ8) and a long (CKβ8-1) isoform of the chemokine. CKβ8 cDNA encodes a 120 amino acid (aa) residue precursor protein with a putative 21 aa residue signal peptide that is cleaved to generate a 99 aa residue mature CKβ8 (aa 22 - 120). Additional N-terminal processing of the 99 aa residue variant can generate a 75 aa residue CKβ8 (aa 46 - 120) that is significantly more active than the 99 aa residue variant. Similarly, CKβ8-1 encodes a 137 aa residue precursor protein that can give rise to a 116 and a 92 aa residue chemokine. Among CC chemokine members, MPIF-1 is most closely related to MIP-5/CCL15 (67% sequence identity) and MIP-1α/CCL3 (51%). MPIF-1 mRNA is most abundant in the adult lung and liver, but is also present in bone marrow, placenta, and various myelomonocytic cell lines. MPIF-1 has been shown to suppress the low proliferative potential colony-forming cells that give rise to granulocyte and monocyte lineages. MPIF-1 binds to CCR1 with high affinity and has been shown to be a potent chemoattractant and activator of monocytes, dendritic cells, and osteoclast precursors.

References:

1. Patel, V. *et al.* (1997) J. Exp. Med. **185**:1163.
2. Youn, B-S. *et al.* (1998) Blood **91**:3118.
3. Nardelli, B. *et al.* (1999) J. Leukoc. Biol. **61**:822.
4. Berkhout, T.A. *et al.* (2000) Biochem. Pharmacol. **59**:591.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449