

DESCRIPTION

Source *E. coli*-derived
Met46-Asn137
Accession # AAC63327

N-terminal Sequence Analysis Met46

Predicted Molecular Mass 10.5 kDa

SPECIFICATIONS

Activity Measured by its ability to chemoattract THP-1 human acute monocytic leukemia cells.
The ED₅₀ for this effect is 0.01-0.04 µg/mL.

Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CCR1.
The ED₅₀ for this effect is 0.002-0.01 µg/mL.

Endotoxin Level <0.01 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. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS.

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

CCL23 (SCY A23), a splice variant of CKβ8 (also known as MPIF-1), is a β chemokine isolated from the THP-1 cDNA library. CCL23 cDNA encodes a 137 amino acid (aa) residue precursor protein with a putative 21 aa residue signal peptide. Compared to CKβ8-1, CKβ8/MPIF-1 lacks a 17 aa residue stretch (Leu 47 - Gly 63) present in CCL23 and has a unique arginine at residue 46. CKβ8-1/CKβ8 (MPIF-1) and leukotactin/MIP-1δ form a subgroup of β chemokines that have 6 conserved cysteine residues and an extended amino-terminus preceding the conserved cysteine pair. CCL23 shares approximately 73% nucleotide sequence identity with leukotactin (MIP-1δ), and the two genes have been localized to human chromosome 17 within 200 kb of each other. CCL23 mRNA expression has been detected in the pancreas, heart and skeletal muscle. Both CKβ8-1 and CKβ8 (MPIF-1) are potent agonists of CCR1 and have been shown to chemoattract peripheral blood lymphocytes and monocytes. The two chemokines have also been reported to chemoattract neutrophils and to inhibit colony formation by human hematopoietic progenitor cells. Similar to CKβ8 (MPIF-1), the truncated form of CKβ8-1 (aa 46 - 132) produced at R&D Systems has been shown to have greatly enhanced biological activity compared to the full length mature CKβ8-1 (aa 22 - 132).

References:

1. Youn, B-S. *et al.* (1998) *Blood* **91**:3118.
2. Macphee, C.H. *et al.* (1998) *J. Immunol.* **161**:6273.