Recombinant Human CCL15/MIP-1δ 68 aa

Catalog Number: 628-LK/CF

DESCRIPTION

Source	*E. coli*-derived Ser46-Ile113 Accession # Q16663
N-terminal Sequence Analysis	Ser46
Predicted Molecular Mass	7.4 kDa

SPECIFICATIONS

Activity	Measured by its ability to chemoattract THP-1 human acute monocytic leukemia cells. The ED_{50} for this effect is 2-4 ng/mL. Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CCR1. The ED_{50} for this effect is 0.6-3 ng/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

CCL15, also named Leukotactin-1 (LKN-1), MIP-5, HCC-2, and NCC-3, is a novel human CC chemokine whose gene was mapped to human chromosome 17 adjacent to the HCC-1 gene. CCL15/LKN-1, together with mouse C10, mouse MIP-1γ and humanMPIF-1, constitute a subgroup of CC chemokines which contain six instead of four conserved cysteine residues. The two additional cysteine residues in CCL15/LKN-1 have been shown to form a third disulfide bond CCL15/LKN-1 cDNA encodes a 113 amino acid (aa) residue precursor protein with a putative signal peptide of 21 aa residues that is cleaved to generate a 92 aa residue mature protein. In recombinant CCL15/LKN-1 preparations produced in insect cells and in yeast, amino-terminal truncations were found to have occurred. The major forms of CCL15/LKN-1 secreted by insect cells and yeast were reported to be proteins of 68 and 66 aa residues, respectively. The full length and the amino-terminal truncated forms of human CCL15δ/LKN-1 have been shown to be potent chemoattractants for monocytes and T-lymphocytes. These proteins can also chemoattract eosinophils and have been shown to induce calcium flux in human CCR1 transfected cells. Additionally, CCL15/LKN-1 can suppress colony formation by human granulocyte-macrophage, erythroid, and multipotential progenitor cells stimulated by combinations of growth factors. As a chemoattractant for THP-1 cells, R&D Systems' 68 aa residue truncated form of CCL15 is approximately 50-fold more active than the 92 aa residue full length CCL15/LKN-1.

References:

1. Youn, B.-S. *et al.* (1997) J. Immunol. **159**:5201.
2. Pardigol, A. *et al.* (1998) Proc. Natl. Acad. Sci. USA **95**:6308.
3. Wang, W. *et al.* (1998) J. Clinical Immunol. **18**:214.
4. Coulin, F. *et al.* (1997) Eur. J. Biochem. **248**:507.

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