Product Data Sheet

Product Name:	MIP 3 Human
Cat. No.:	GP21183
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	C-C motif chemokine 23; Small-inducible cytokine A23; Macrophage inflammatory protein 3; Myeloid progenitor inhibitory factor 1; CK-beta-8; MIP-3; MPIF-1; CKB-8; CCL23; MIP3; MPIF1; SCYA23; CKb8; Ckb-8-1.		
Amino Acid Sequence	RVTKDAETEF MMSKLPLENP VLLDRFHATS ADCCISYTPR SIPCSLLESYFETNSECSKP GVIFLTKKGR RFCANPSDKQ VQVCMRMLKL DTRIKTRKN.		
Solubility	It is recommended to reconstitute the lyophilized MIP-3 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Filtered (0.2µm) and lyophilized from a concentrated (1mg/ml) solution in 20mM PB, pH 7.4, 150mM NaCl.		

Introduction

CCL23 (MIP-3) is a ligand for the CCR1chemokine receptor. CCL23 is one of several cytokine genes clustered on the q-arm of chromosome 17, in a locus containing several other CC chemokines. MIP-3 chemoattracts monocytes, resting T-lymphocytes and neutrophils, but not activated lymphocytes. Furthermore, it was shown that MIP-3 inhibits colony formation of bone marrow myeloid immature progenitors. MIP-3 is mainly expressed in lung and liver tissue, but can be also found in bone marrow and placenta, as well as in some cell lines of myeloid origin. Alternative splicing of the CCL23 gene produces 2 mRNAs which encode a short (CK?8) and a long (CK?81) isoform of the MIP-3. CK?8 cDNA encodes a 120 amino acid residue precursor protein with a putative 21 a.a. residue signal peptide which is cleaved to generate a 99 a.a. residue mature CK?8 (a.a. 22-120). Further N-terminal processing of the 99 a.a. residue variant can produce a 75

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a.a. residue CK?8 (a.a. 46-120) which is considerably more active than the 99 a.a. residue variant.MIP-3 may be involved in the malignant progression of certain human cancer cells which overexpress ErbB2 through the transactivation of ErbB2 tyrosine kinase. MIP-3 may also be involved in angiogenesis via upregulation of matrix metalloproteinase MMP-2 expression.

Biological Activity

Determined by its ability to chemoattract human T cell population using a concentration range of 10-50ng/ml corresponding to a Specific Activity of 20,000-100,000IU/mg.

Stability

Lyophilized MIP-3 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution CCL23 should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

MIP-3 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 99 amino acids and having a molecular mass of 11.3kDa. The MIP-3 is purified by proprietary chromatographic techniques.

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