

Overview

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| Synonyms | MIP-4/CCL18, Human; |
| Description | CCL18, is a novel CC chemokine that is highly homologous to MIP-1 ^a (61% amino acid sequence identity). CCL18 cDNA encodes an 89 aa residue precursor protein with a 20 aa putative signal peptide that is cleaved to generate a 69 aa residue mature protein which lacks potential glycosylation sites. In vitro, CCL18 mRNA expression is induced in alternatively activated macrophages by Th2 cytokines such as IL-4, IL-10 and IL-13, and inhibited by IFN- γ . CCL18 mRNA is also expressed by GM-CSF/IL-4-induced monocyte-derived dendritic cells. In vivo, CCL18 is highly expressed in lung and placenta but is not expressed in epidermal Langerhans cells. Recombinant CCL18 has been shown to chemoattract naive T cells, but not monocytes or neutrophils. |
| Species | Human |
| Source | <i>E. coli</i> |
| Biological Activity | Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human T-lymphocytes is in a concentration of 1.0-10 ng/ml. |
| Sequence | AQVGTNKELC CLVYTSWQIP QKFIVDYSET SPQCPKPGVI LLTKRGRQIC ADPNKKWVQK YISDLKLNA |

Properties

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| Measured Molecular Weight | Approximately 7.9 kDa, a single non-glycosylated polypeptide chain containing 69 amino acids. |
| Purity | > 97 % by SDS-PAGE and HPLC analyses. |
| Formulation | Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PB, pH 7.4, 100 mM NaCl. |
| Reconstitution | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at d -20 °C. Further dilutions should be made in appropriate buffered solutions. |
| Endotoxin Level | Less than 1 EU/ μ g of rHuMIP-4/CCL18 as determined by LAL method. |
| Physical Appearance | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Usage | This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. |
| Storage | This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles. |

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