



Macrophage Inflammatory Protein-3 alpha (CCL20), human recombinant (rHuMIP-3A)

Catalog No:	99847
Lot No:	XXXXX
Source:	<i>E. coli</i>
Synonyms:	S Small inducible cytokine A20 precursor, CCL20, Macrophage inflammatory protein 3 alpha, MIP-3-alpha, Liver and activation- regulated chemokine, CC chemokine LARC, Beta chemokine exodus-1, CKb4, LARC, ST38, MIP3A, MIP-3a, SCYA20

Background

CCL-20 is a chemotactic factor that draws lymphocytes & neutrophils, rather than monocytes. MIP-3 alpha inhibits proliferation of myeloid progenitors in colony formation assays. MIP3A plays a role in the formation and function of the mucosal lymphoid tissues by attracting lymphocytes and dendritic cells towards epithelial cells. C-terminal processed forms have been shown to be equally chemotactically active for leukocytes. CCL-20 holds antibacterial activity *E. coli* atcc 25922 and *s.aureus* atcc 29213. CCL-20 gene transcription is activated by *H. pylori*, which activates NF-kappaB through intracellular signal pathway which involves I kappaB kinase and NF-kappaB-inducing kinase. MIP-3 alpha is involved in chemokine-mediated lymphocyte trafficking during gastric inflammation in *Helicobacter* infection. CCL-20 expression is involved in the recruitment of CD45RO-positive T cell subsets into the intestinal lamina propria. MIP-3A is in charge of the advancement of pulpal inflammation through the recruitment of C-C motif Receptor 6-expressing lymphocytes. Vaginal epithelial cells respond to factors present in semen by secreting MIP-3 alpha, which increases langerhans cells recruitment during HIV transmission.

Description

Macrophage Inflammatory protein-3 alpha human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 8 kDa. MIP-3a is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized MIP-3a in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized MIP-3a, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL20 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.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

ASNFDCCLGY TDRILHPKFI VGFTRQLANE GCDINAIIFH TKKKLSVCAN PKQTVVKYIV RLLSKKVKNM

CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



Activity

Determined by its ability to chemoattract human T lymphocytes using a concentration range of 10.0 - 50.0 ng/ml, corresponding to a specific activity of 20,000 - 100,000 units/mg.

Usage

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