



Macrophage Inflammatory protein-3 alpha (CCL20), mouse recombinant (rmMIP3a)

Catalog No: 97325
Lot No: XXXXX
Source: *E. coli*
Synonyms: 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, C-C motif chemokine 20, CC chemokine ST38, exodus-1

Background

CCL20 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. CCL20 holds antibacterial activity *E. coli* atcc 25922 and *s.aureus* atcc 29213. CCL20 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. CCL20 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 mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7.9 kDa. MIP-3a is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.

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 CCL-20 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 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

ASNYDCCLSY IQTPLPSRAI VGFTRQMADE ACDINAIIFH TKKRKSVCAD PKQNWVKRAV NLLSLRVKKM



Activity

The Activity is calculated by its ability to chemoattract primary human T cells at 2 - 20 ng/ml, corresponding to a specific activity of 50,000 - 500,000 units/mg.

Usage

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