

Recombinant Human CCL20 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50128

Size: 10ug, 100ug

Protein Name: C-C motif chemokine 20 (Beta-chemokine exodus-1) (CC chemokine LARC) (Liver and activation-regulated chemokine) (Macrophage inflammatory protein 3 alpha) (MIP-3-alpha) (Small-inducible cytokine A20) [Cleaved into: CCL20(1-67); CCL20(1-64); CCL20(2-70)]

Synonym: CCL20, LARC, MIP3A, SCYA20

UniProt ID: P78556

UniProt Link: www.uniprot.org/uniprotkb/P78556/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 96 AA

Molecular Weight: 11 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MCCTKSLLLAALMSVLLLHLCGESEAASNFDCCCLGYTDRILHPKFIVGFTRQLANEGCDINAIIFHTKK
KLSVCANPKQTWVKYIVRLLSKKVKNM

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant C-C motif chemokine 20 (Beta-chemokine exodus-1) (CC chemokine LARC) (Liver and activation-regulated chemokine) (Macrophage inflammatory protein 3 alpha) (MIP-3-alpha) (Small-inducible cytokine A20) [Cleaved into: CCL20(1-67); CCL20(1-64); CCL20(2-70)] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Acts as a ligand for C-C chemokine receptor CCR6. Signals through binding and activation of CCR6 and induces a strong chemotactic response and mobilization of intracellular calcium ions (PubMed:11035086, PubMed:11352563, PubMed:20068036). The ligand-receptor pair CCL20-CCR6 is responsible for the chemotaxis of dendritic cells (DC), effector/memory T-cells and B-cells and plays an important role at skin and mucosal surfaces under homeostatic and inflammatory conditions, as well as in pathology, including cancer and various autoimmune diseases (PubMed:21376174). CCL20 acts as a chemotactic factor that attracts lymphocytes and, slightly, neutrophils, but not monocytes (PubMed:11352563, PubMed:9038201). Involved in the recruitment of both the pro-inflammatory IL17 producing helper T-cells (Th17) and the regulatory T-cells (Treg) to sites of inflammation. Required for optimal migration of thymic natural regulatory T cells (nTregs) and DN1 early thymocyte progenitor cells (By similarity). C-terminal processed forms have been shown to be equally chemotactically active for leukocytes (PubMed:11035086). Positively regulates sperm motility and chemotaxis via its binding to CCR6 which triggers Ca²⁺ mobilization in the sperm which is important for its motility (PubMed:23765988, PubMed:25122636). Inhibits proliferation of myeloid progenitors in colony formation assays (PubMed:9129037). May be involved in formation and function of the mucosal lymphoid tissues by attracting lymphocytes and dendritic cells towards epithelial cells (By similarity). Possesses antibacterial activity towards E.coli ATCC 25922 and S.aureus ATCC 29213 (PubMed:12149255).

Subcellular Localization: Secreted .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.