

Recombinant Rat X3CL1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52214

Size: 10ug, 100ug

Protein Name: Fractalkine (C-X3-C motif chemokine 1) (CX3C membrane-anchored chemokine) (Neurotactin) (Small-inducible cytokine D1) [Cleaved into: Processed fractalkine]

Synonym: Cx3cl1, Acc1, Fkn, Scyd1

UniProt ID: O55145

UniProt Link: www.uniprot.org/uniprotkb/O55145/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 393 AA

Molecular Weight: 42 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAPSQLAWLLRLAFAFFHLCTLLAGQHLGMTKCNITCHKMTSPIPVTLIIHYQLNQESCGKRAIILETRQ
HRHFCADPKEKWWQDAMKHLHDHQTAAALTRNGGKFEKRVNDVTPRITSATRGLSPTALAKPESATVE
DLTLEPTAISQEARRPMGTSQEPPAAVTGSSPSTSKAQDAGLAAPQSTGISEVAAVSTTIWPSSAV
YQSGSSLWAEKATESPPTIALSTQASTTSSPKQNVGSEGQPPWVQEQDSTPEKSPGPEETNPVH
TDIFQDRGPGSTVHPSVAPTSSEKTPSELVASGSQAPKVEEPIHATADPQKLSVFITPVPDSQAATR
RQAVGLLAFLGLLFC LGVAMFAYQSLQGCPKRMAGEMVEGLRYVPRSCGSNSYVLVPV

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 Fractalkine (C-X3-C motif chemokine 1) (CX3C membrane-anchored chemokine) (Neurotactin) (Small-inducible cytokine D1) [Cleaved into: Processed fractalkine] 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: Chemokine that acts as a ligand for both CX3CR1 and integrins ITGAV:ITGB3 and ITGA4:ITGB1. The CX3CR1-CX3CL1 signaling exerts distinct functions in different tissue compartments, such as immune response, inflammation, cell adhesion and chemotaxis. Regulates leukocyte adhesion and migration processes at the endothelium. Can activate integrins in both a CX3CR1-dependent and CX3CR1-independent manner. In the presence of CX3CR1, activates integrins by binding to the classical ligand-binding site (site 1) in integrins. In the absence of CX3CR1, binds to a second site (site 2) in integrins which is distinct from site 1 and enhances the binding of other integrin ligands to site 1.; [Processed fractalkine]: The soluble form is chemotactic for T-cells and monocytes, but not for neutrophils.; [Fractalkine]: The membrane-bound form promotes adhesion of those leukocytes to endothelial cells.

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .; [Processed fractalkine]: 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.