

Recombinant Rat PLF4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52248

Size: 10ug, 100ug

Protein Name: Platelet factor 4 (PF-4) (C-X-C motif chemokine 4)

Synonym: Pf4, Cxcl4, Scyb4

UniProt ID: P06765

UniProt Link: www.uniprot.org/uniprotkb/P06765/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 105 AA

Molecular Weight: 11 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSAAAVFRGLRPSPELLLLGLLLPAVVAVTRASPEESDGDLSVCVKTSSSRIHLKRITSLEVIKAGP
HCAVPQLIATLKNQSKICLDRQVPLYKKIIKKLLES

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 Platelet factor 4 (PF-4) (C-X-C motif chemokine 4) 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 released during platelet aggregation that plays a role in different biological processes including hematopoiesis, cell proliferation, differentiation, and activation. Acts via different functional receptors including CCR1, CXCR3A or CXCR3B. Upon interaction with CXCR3A receptor, induces activated T-lymphocytes migration mediated via downstream Ras/extracellular signal-regulated kinase (ERK) signaling. Neutralizes the anticoagulant effect of heparin by binding more strongly to heparin than to the chondroitin-4-sulfate chains of the carrier molecule. Plays a role in the inhibition of hematopoiesis and in the maintenance of hematopoietic stem cell (HSC) quiescence. Chemotactic for neutrophils and monocytes via CCR1. Inhibits endothelial cell proliferation. In cooperation with toll-like receptor 8/TLR8, induces chromatin remodeling and activates inflammatory gene expression via the TBK1-IRF5 axis. In addition, induces myofibroblast differentiation and collagen synthesis in different precursor cells, including endothelial cells, by stimulating endothelial-to-mesenchymal transition. Interacts with thrombomodulin/THBD to enhance the activation of protein C and thus potentiates its anticoagulant activity.

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.