

Recombinant Rat FURIN Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52316

Size: 10ug, 100ug

Protein Name: Furin (EC 3.4.21.75) (Dibasic-processing enzyme) (Paired basic amino acid residue-cleaving enzyme) (PACE) (Prohormone convertase 3)

Synonym: Furin, Fur, Pcsk3

UniProt ID: P23377

UniProt Link: www.uniprot.org/uniprotkb/P23377/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 793 AA

Molecular Weight: 87 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MELRPWLLWVVAAGALVLLAAEARGQKIFTNTWAVHISGGPAVADSVARKHGFHNLGQIFGDYYH
FWHRAVTKRSLSPHRPRHSRLQRPVQVKWLEQQVAKQRAKRDVYQEPTDPKFQQWYLSGVTQR
DLNVKEAWAQGFTGRGIVVSILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQPRYTQMNDNRHG
TRCAGEVAAVANNGVCGVGVAYNARIGGVRMLDGEVTDAVEARSLGLNPNIHIHYSASWGPEDDG
KTVDGPARLAEAAFFRGVSQGRGGLGSIFVWASGNGGREHDSCNCDGYTNSIYTLSSISSATQFGNV
PWYSEACSSTLATTYSSGNQNEKQIVTTDLRQKCTESHTGTSASAPLAAGIIALTLEANKNLTWRDM
QHLVVQTSKPAHLNANDWATNGVGRKVSYSYGYGLLDAGAMVALAQNWTTVAPQRKCIIEILAEPK
DIGKRLEVRKTVTACLGEPNHISRLHVQARLTLSYNRRGDLAIHLISPMGTRSTLLAARPHDYSADG
FNDWAFMTTHSWDEDPSGEWVLEIENTSEANNYGTLTFTLVLYGTASEGLSAPPESSGCKTLTSS
QACVVCEEFGSLHQKSCVQRCPPGFTPVLDTHYSTENDVEIRASVCTPCHASCATCQGPAPTDC
LSCPSHASLDPVEQTCSRQSQSSRESRPQQPPPALARPEVEVEPRRLRAGLASHLPEVLAGLSCLIALI
FGIVFLFLHRCSGFSFRGVKQVYTMDRGLISYKGLPPEAWQEECPDSEEDDEGRGERTAFIKDQSAL

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 Furin (EC 3.4.21.75) (Dibasic-processing enzyme) (Paired basic amino acid residue-cleaving enzyme) (PACE) (Prohormone convertase 3) 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: Ubiquitous endoprotease within constitutive secretory pathways capable of cleavage at the RX(K/R)R consensus motif (PubMed:9252368). Mediates processing of TGFB1, an essential step in TGF-beta-1 activation (By similarity). Converts through proteolytic cleavage the non-functional Brain natriuretic factor prohormone into its active hormone BNP(1-45) (PubMed:9252368). By mediating processing of accessory subunit ATP6AP1/Ac45 of the V-ATPase, regulates the acidification of dense-core secretory granules in islets of Langerhans cells (By similarity).

Subcellular Localization: Golgi apparatus, trans-Golgi network membrane ; Single-pass type I membrane protein . Cell membrane ; Single-pass type I membrane protein . Secreted . Endosome membrane ; Single-pass type I membrane protein . Note=Shuttles between the trans-Golgi network and the cell surface. Propeptide cleavage is a prerequisite for exit of furin molecules out of the endoplasmic reticulum (ER). A second cleavage within the propeptide occurs in the trans Golgi network (TGN), followed by the release of the propeptide and the activation of furin.

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.