

Recombinant Mouse FER Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51502

Size: 10ug, 100ug

Protein Name: Tyrosine-protein kinase Fer (EC 2.7.10.2) (Proto-oncogene c-Fer) (p94-Fer)

Synonym: Fer, Fert2

UniProt ID: P70451

UniProt Link: www.uniprot.org/uniprotkb/P70451/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 823 AA

Molecular Weight: 95 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGFGSDLKNSQEAVLKLQDWELRLLETVKKFMALRIKSDKEYAYTLQNLNQNVDKESTVQVNYVSN
VSKSWLLMIQQTEQLSRIMKTHAEDLNSGPLHRLTMMIKDKQQVKKS YVGIHQQIEAEMIKVTKTELE
KLKSSYRQLIKEMNSAKEKYKEALAKGKETEKAKERYDKATMKLHMLHNQYVLALKGAQLHQSQYY
DTTLPLLLDSVQKMQEEMIKALKGIFDDYSQITSLVTEEIVNVHKEIQMSVEQIDPSTEYNNFIDVHRTT
AAKEQEIEFDTSLLNEENENLQANEIMWNNLTADSLQVMLKTLAEELTQTQQMLLHKEAAVLELEKRIE
ESFETCEKKSDIVLLGQKQALEELKQSVQQLRCTEAKCAAQKALLEQKVQENDGKEPPPVVNYEE
DARSVTSMERKERLSKFESIRHSIAGIIKSPKSVLGSSTQVCDVISVGERPLAEHDWYHGAIPRIEAQE
LLKQQGDFLVRESHGKPGEYVLSVYSDGQRRHFIIQFVDNLYRFEGTGFSNIPQLIDHHFNTKQVITK
KSGVLLNPIPKDKKWWLNHEDVSLGELLGKGNFGEVYKGTLDKTPVAIKTCKEDLPQELKIKFLQE
AKILKQYDHPNIVKLIGVCTQRQPVYIIMELVPGGDFLTFLRKRKDELKLKQLVRFSLDVAAGMLYLES
KNCIHRDLAARNCLVGENNTLKISDFGMSRQEDGGVYSSSGLKQIPIKWTAPALNYGRYSSES DV
WSFGILLWETFS LGVCPYPGMTNQQAREQVERGYRMSAPQNCPEEVFTIMMKCWDYKPENRPF
NDLHKELTVIKKMIT

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 Tyrosine-protein kinase Fer (EC 2.7.10.2) (Proto-oncogene c-Fer) (p94-Fer) 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: Tyrosine-protein kinase that acts downstream of cell surface receptors for growth factors and plays a role in the regulation of the actin cytoskeleton, microtubule assembly, lamellipodia formation, cell adhesion, cell migration and chemotaxis. Acts downstream of EGFR, KIT, PDGFRA and PDGFRB. Acts downstream of EGFR to promote activation of NF-kappa-B and cell proliferation. May play a role in the regulation of the mitotic cell cycle. Plays a role in the insulin receptor signaling pathway and in activation of phosphatidylinositol 3-kinase. Acts downstream of the activated FCER1 receptor and plays a role in FCER1 (high affinity immunoglobulin epsilon receptor)-mediated signaling in mast cells. Plays a role in the regulation of mast cell degranulation. Plays a role in leukocyte recruitment and diapedesis in response to bacterial lipopolysaccharide (LPS). Phosphorylates CTTN, CTNND1, PTK2/FAK1, GAB1, PECAM1 and PTPN11. May phosphorylate JUP and PTPN1. Can phosphorylate STAT3 according to PubMed:10878010 and PubMed:19159681, but clearly plays a redundant role in STAT3 phosphorylation. According to PubMed:11134346, cells where wild type FER has been replaced by a kinase-dead mutant show no reduction in STAT3 phosphorylation. Phosphorylates TMF1. Isoform 3 lacks kinase activity.

Subcellular Localization: Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Cell projection . Cell junction . Membrane ; Peripheral membrane protein ; Cytoplasmic side . Nucleus. Cytoplasm, cell cortex . Note=Detected on microtubules in polarized and motile vascular endothelial cells. Colocalizes with F-actin at the cell cortex. Colocalizes with PECAM1 and CTNND1 at nascent cell-cell contacts (By similarity). Not detected in the nucleus, but detected in the nuclear area surrounding the chromosomes after breakdown of the nuclear envelope during mitosis (PubMed:11339827).; [Isoform 4]: Nucleus.

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.