

Recombinant Rat MP2K5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52487

Size: 10ug, 100ug

Protein Name: Dual specificity mitogen-activated protein kinase kinase 5 (MAP kinase kinase 5) (MAPKK 5) (EC 2.7.12.2) (MAPK/ERK kinase 5) (MEK 5)

Synonym: Map2k5, Mek5, Mkk5, Prkmk5

UniProt ID: Q62862

UniProt Link: www.uniprot.org/uniprotkb/Q62862/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 448 AA

Molecular Weight: 50 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLWLALGPFAMENQVLVIRIKIPNSGAVDWT VHSGPQLLFRDVL DVIGQVLPEATTTAF EYEDGDG
DRITVRSDEEMKAMLSYYYSTVMEQQVNGQLIEPLQIFPRACKPPGERNIHGLKVNTRAGPSQHTSP
VVSDSLPSNSLKKSSAELRKILANGQMNEQDIRYRDTLGHGNGGT VYKAYHVP SGKILAVKVILLDITL
ELQKQIMSELEILYKCDSSYIIGFYGAFFVENRISICTEFMDGGSLDVYRKIPEHVLGRIAVAVVKGLTY
LWSLKILHRDVKPSNMLVNTSGQVKLCDFGVSTQLVNSIAKTYVGTNAYMAPERISGEQYGIHSDVW
SLGISFMELALGRFPYPQIQKNQGSMLPLQLLQCIVDEDSPVLPLGEFSEPFVHFITQCMRKQPKERP
APEELMGHPFIVQFNDGNATVSMWVCRALEERRSQQGPP

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 Dual specificity mitogen-activated protein kinase kinase 5 (MAP kinase kinase 5) (MAPKK 5) (EC 2.7.12.2) (MAPK/ERK kinase 5) (MEK 5) 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 scaffold for the formation of a ternary MAP3K2/MAP3K3-MAP3K5-MAPK7 signaling complex. Activation of this pathway appears to play a critical role in protecting cells from stress-induced apoptosis, neuronal survival and cardiac development and angiogenesis (By similarity). As part of the MAPK/ERK signaling pathway, acts as a negative regulator of apoptosis in cardiomyocytes via promotion of STUB1/CHIP-mediated ubiquitination and degradation of ICER-type isoforms of CREM (PubMed:20724525).

Subcellular Localization: [Isoform Beta]: Cytoplasm, cytosol.; [Isoform Alpha-1]: Membrane. Note=The alternatively spliced exon in alpha isoform resemble conserved sequences that mediate interactions with the cytoskeleton, thereby explaining the differential localization.; [Isoform Alpha-2]: Membrane. Note=The alternatively spliced exon in alpha isoform resemble conserved sequences that mediate interactions with the cytoskeleton, thereby explaining the differential localization.

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.