

Recombinant Mouse PP2BB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51438

Size: 10ug, 100ug

Protein Name: Serine/threonine-protein phosphatase 2B catalytic subunit beta isoform (EC 3.1.3.16) (CAM-PRP catalytic subunit) (Calmodulin-dependent calcineurin A subunit beta isoform) (CNA beta)

Synonym: Ppp3cb, Calnb

UniProt ID: P48453

UniProt Link: www.uniprot.org/uniprotkb/P48453/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 525 AA

Molecular Weight: 59 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAPEPARAAPPPPPPPPPPLGADR VVKAVFPPTHRLTSEE VFDMDGIPRVDVLKNHLVKEGRVD
EEIALRIINEGAAILRREKTMIEVEAPITVCGDIHGQFFDLMKLF EVGGSPANTRYLFLGDYVDRGYFSI
ECVLYLWVLKILYPSTLFLLRGNHECRHLTEYFTFKQECKIKYSERVYEACMEAFDSLPLAALLNQQF
LCVHGGLSPEIHTLDDIRRLDRFKEPPAFGPMCDLLWSDPSEDFGNEKSQEHSHTVIRGCSYFYN
YPAVCEFLQNNNLLSIIRAHEAQDAGYRMYRKSQTTGFPSLITIFSAPNYLDVYNNKAAVLKYENNVM
NIRQFNCSPHPYWLPNFMDFVFTWVSLPFVGEKVTEMLVNVLSICSDDELMTEGEDQFDVGSAAARKE
IIRNKIRAIGKMARVFSVLREESESVLTLKGLTPTGMLPSGVLAGGRQTLQSATVEAIEAEKAIRGFSP
PHRICSFEEAKGLDRINERMPPRKDAVQQDGFNSLNTAHTTENHGTGNHSAQ

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 Serine/threonine-protein phosphatase 2B catalytic subunit beta isoform (EC 3.1.3.16) (CAM-PRP catalytic subunit) (Calmodulin-dependent calcineurin A subunit beta isoform) (CNA beta) 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: Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca^{2+} -mediated signals (By similarity). Dephosphorylates TFEB in response to lysosomal Ca^{2+} release, resulting in TFEB nuclear translocation and stimulation of lysosomal biogenesis (By similarity). Dephosphorylates and activates transcription factor NFATC1 (By similarity). Dephosphorylates and inactivates transcription factor ELK1 (By similarity). Dephosphorylates DARPP32 (By similarity). Negatively regulates MAP3K14/NIK signaling via inhibition of nuclear translocation of the transcription factors RELA and RELB (PubMed:26029823). May play a role in skeletal muscle fiber type specification (PubMed:12773574).

Subcellular Localization: Cytoplasm .

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.