

Recombinant Mouse TBC23 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51772

Size: 10ug, 100ug

Protein Name: TBC1 domain family member 23

Synonym: Tbc1d23

UniProt ID: Q8K0F1

UniProt Link: www.uniprot.org/uniprotkb/Q8K0F1/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 684 AA

Molecular Weight: 76 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAEGEELLPLSTSGGDSWEKDLEEAL EAGGCDLET LRNIIQGRPLPAELRAK VWKIALNVAGKGDSL
ASWDGILDLP EQNTIHKDCLEFIEQLSVPEEKAAELLDDIESVITFYCKSRSVKYSTSLSWIHLLKPLICL
QLPRSDLYNCFYAVMNKYIPRDCSLKGRPFHFLRLLIQYHEPELCSFLDTKKITPDSYALNWLGSLFA
HYCSTEV TQAIWDGYLQQADPFFIYFLMLIILVNTKEVILAQESDSKEEVIRFLESTPASLNLEDIEDLFS
LAQYYCSKTPASFRKDNHHLFGSTLLGIKDDEADLSQALCLAVSVSEILQANQLQGEGVRFFVDCR
PAEQYNAGHLATAFHLDSDLMLQNPSEFAQSVKSLLEAQKQSI ESGSIAGGEHL CFMGSGREEEDM
YMN MVLAHFLQKNKEYVSIASGGFMALQQHLADINVEGPESGYGHWIASTSGSRGSISSVDGESC N
GSNDRGMKSLVSKMTVALKTKSVTVREKVISFIENSSTPVDRHVSSSDRVGKPYRGVKPVFSIGDEE
EYDTDEIDSSSMSDDDRKEVVNIQTWINKPDIKHHFPCKEVKESGHMFPSHLLVTATHMYCLREILSR
KGLAYIQSRQALNSVVKITSKKKHPELITFKYGNSSASGIEILAERYLIPNAGDATRAIKQQIMKVLDALE
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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 TBC1 domain family member 23 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: Putative Rab GTPase-activating protein which plays a role in vesicular trafficking. Involved in endosome-to-Golgi trafficking. Acts as a bridging protein by binding simultaneously to golgins, including GOLGA1 and GOLGA4, located at the trans-Golgi, and to the WASH complex, located on endosome-derived vesicles (PubMed:29084197). Together with WDR11 complex facilitates the golgin-mediated capture of vesicles generated using AP-1 (By similarity). Plays a role in brain development, including in cortical neuron positioning. May also be important for neurite outgrowth, possibly through its involvement in membrane trafficking and cargo delivery, 2 processes which are essential for axonal and dendritic growth (PubMed:28823707). May act as a general inhibitor of innate immunity signaling, strongly inhibiting multiple TLR and dectin/CLEC7A-signaling pathways. Does not alter initial activation events, but instead affects maintenance of inflammatory gene expression several hours after bacterial lipopolysaccharide (LPS) challenge (PubMed:22312129).

Subcellular Localization: Golgi apparatus, trans-Golgi network . Cytoplasmic vesicle .
Note=Localization to the trans-Golgi (TGN) is regulated by ARL1 and ARL5B/ARL8. ARL1 increases Golgi localization, while ARL5B decreases it. Recruitment to the trans-Golgi network requires the presence of GOLGA1 and GOLGA4, but not that of FAM91A1 (By similarity). Recruited on AP-1-derived vesicles by WDR11 complex (By similarity).

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.