

Recombinant Mouse SYT11 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51970

Size: 10ug, 100ug

Protein Name: Synaptotagmin-11 (Synaptotagmin XI) (SytXI)

Synonym: Syt11

UniProt ID: Q9R0N3

UniProt Link: www.uniprot.org/uniprotkb/Q9R0N3/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 430 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAEITNIRPSFDVSPVAAGLIGASVLVVCVSVTVFVWTCCHQQAEEKKHKTPPYKFIHMLKGISIYPETL
SNKKKIIVRRDKDGPRRESGRGNLLINAESGLLSHDKDPRGPSPASCMDQLPIKRDYGEELRSPMT
SLTPGESKATSPSSPEEDVMLGSLTFSVDYNFPKKALVVTIQEAHGLPVMDDQTQGSDPYIKMTILPD
KRHRVKTRVLRKTLDPVFDETFTFYGIPYSQLQDLVLHFLVLSFDRFSRDDVIGVVMVPLAGVDPSTG
KVQLTRDIIKRNIQKCISRGELQVLSYQPVAQRMTVVVLKARHLPKMDITGLSGNPYVKVNVYYGRK
RIAKKKTHVKCTLNPVFNESFIYDIPTDLLPDISIEFLVIDFDRTTKNEVVGRILGAHSVTTSGAEHW
REVCESPRKPIAKWHSLSLEY

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 Synaptotagmin-11 (Synaptotagmin XI) (SytXI) 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: Synaptotagmin family member involved in vesicular and membrane trafficking which does not bind Ca(2+) (Probable). Inhibits clathrin-mediated and bulk endocytosis, functions to ensure precision in vesicle retrieval (PubMed:29311685). Plays an important role in dopamine transmission by regulating endocytosis and the vesicle-recycling process (PubMed:29311685). Essential component of a neuronal vesicular trafficking pathway that differs from the synaptic vesicle trafficking pathway but is crucial for development and synaptic plasticity (PubMed:30808661). In macrophages and microglia, inhibits the conventional cytokine secretion, of at least IL6 and TNF, and phagocytosis (PubMed:23303671, PubMed:28686317). In astrocytes, regulates lysosome exocytosis, mechanism required for the repair of injured astrocyte cell membrane (PubMed:26450452). Required for the ATP13A2-mediated regulation of the autophagy-lysosome pathway (PubMed:27278822).

Subcellular Localization: Cytoplasmic vesicle membrane ; Single-pass membrane protein . Perikaryon . Golgi apparatus, trans-Golgi network membrane ; Single-pass membrane protein . Recycling endosome membrane ; Single-pass membrane protein . Lysosome membrane ; Single-pass membrane protein . Cytoplasmic vesicle, phagosome . Cell projection, axon . Cell projection, dendrite . Postsynaptic density . Recycling endosome membrane ; Single-pass membrane protein . Cytoplasmic vesicle, clathrin-coated vesicle membrane ; Single-pass membrane protein . Perikaryon . Note=Localized in vesicles that travels in axonal and dendritic shafts in both anterograde and retrograde directions (PubMed:30808661). In macrophages and microglia, recruited in phagosomes at early stages of phagocytosis (PubMed:23303671, PubMed:28686317).

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.