

Recombinant Human SYT1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50939

Size: 10ug, 100ug

Protein Name: Synaptotagmin-1 (Synaptotagmin I) (Sytl) (p65)

Synonym: SYT1, SVP65, SYT

UniProt ID: P21579

UniProt Link: www.uniprot.org/uniprotkb/P21579/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 422 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MVSESHHEALAAPPVTTVATVLPSNATEPASPGEKEDAFSKLKEKFMNELHKIPLPPWALIAIAIVAV
LLVLTCCFCICKKCLFKKKKNKKKGKEKGGKNAINMKDVKDLGKTMKDQALKDDDAETGLTDGEEKEE
PKEEEKLGKLQYSLDYDFQNNQLLVGIIQAAELPALDMGGTSDPYVKVFLLPDKKKKFETKVHRKTLN
PVFNEQFTFKVPYSELGGKTLVMAVYDFDRFSKHDIIGEFKVPMTNTVDFGHVTEEWRDLQSAEKEE
QEKLGDICFSLRYVPTAGKLTVVILEAKNLKKMDVGGGLSDPYVKIHLMQNGKRLKKKKTTIKKNTLNP
YYNESFSFEVPFEQIQKVQVVTVLDYDKIGKNDIAIGKVFVGYNSTGAELRHWSMDLANPRRPIAQW
HTLQVEEEVDAMLAVKK

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-1 (Synaptotagmin I) (SytI) (p65) 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 sensor that participates in triggering neurotransmitter release at the synapse (By similarity). May have a regulatory role in the membrane interactions during trafficking of synaptic vesicles at the active zone of the synapse (By similarity). It binds acidic phospholipids with a specificity that requires the presence of both an acidic head group and a diacyl backbone. A Ca^{2+} -dependent interaction between synaptotagmin and putative receptors for activated protein kinase C has also been reported. It can bind to at least three additional proteins in a Ca^{2+} -independent manner; these are neurexins, syntaxin and AP2. Plays a role in dendrite formation by melanocytes (PubMed:23999003).

Subcellular Localization: Cytoplasmic vesicle, secretory vesicle membrane ; Single-pass membrane protein . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane ; Single-pass membrane protein . Cytoplasmic vesicle, secretory vesicle, chromaffin granule membrane ; Single-pass membrane protein . 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.