

Recombinant Mouse SORT Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51690

Size: 10ug, 100ug

Protein Name: Sortilin (Neurotensin receptor 3) (NTR3) (mNTR3)

Synonym: Sort1

UniProt ID: Q6PHU5

UniProt Link: www.uniprot.org/uniprotkb/Q6PHU5/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 825 AA

Molecular Weight: 91 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MERPRGAADGLLRWPLGLLLLLQLLPPAAVGQDRLDAPPPAPPLLRWAGPVGVSWSGLRAAAPGG
PVPRAGRWRRGAPAEDQDCGRLPDFIAKLNTNTHQHVFDDLSGSVSLSWVGDSTGVILVLTTFQVP
LVIVSFGQSKLYRSEDYGKNFKDITNLINNTFIRTEFGMAIGPENSGKVILTAEVSGGSRGGRVFRSSD
FAKNFVQTDLPFHPLTQMMYSPQNSDYLLALSTENGLWVSKNFGKEWEEIHKAVCLAKWGPNNIIFF
TTHVNGSCKADLGALELWRTSDLGKTFKTIGVKIYSFGLGGRFLFASVMADKDTTRRIHVSTDQGDT
WSMAQLPSVGQEYFYSILAANEDMVFMHVDEPGDTGFGTIFTSDDRGIVYSKSLDRHLYTTTGGET
DFTNVTSLRGVYITSTLSEDNSIQSMITFDQGGRWEHLRKPENSKCDATAKNKNECSLHIHASYSISQ
KLNVPMAPLSEPNAVGIIVAHGSVGDASVMVPDVYISDDGGYSWAKMLEGPHYTYTILDSGGIIVAIEH
SNRPINVIKFSTDEGQCWQSYVFTQEPIYFTGLASEPGARSMNISIWGFTESFITRQWVSYSYTVDFKDIL
ERNCEEDDYTTWLAHSTDPGDYKDGCILGYKEQFLRLRKSSVCQNGRDYVVAKQPSVCPCSLDFL
CDFGYFRPENASECQEPELKGHELEFCLYGKEEHLTTNGYRKIPGDKCQGGMNPAREVKDLKKK
CTSNFLNPTKQNSKNSVPIILAIVGLMLVTVVAGVLIVKKYVCGGRFLVHRYSVLQQHAEADGVEAL
DSTSHAKSGYHDDSDLEDLLE

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 Sortilin (Neurotensin receptor 3) (NTR3) (mNTR3) 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: Functions as a sorting receptor in the Golgi compartment and as a clearance receptor on the cell surface. Required for protein transport from the Golgi apparatus to the lysosomes by a pathway that is independent of the mannose-6-phosphate receptor (M6PR). Lysosomal proteins bind specifically to the receptor in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelysosomal compartment where the low pH mediates the dissociation of the complex. The receptor is then recycled back to the Golgi for another round of trafficking through its binding to the retromer. Also required for protein transport from the Golgi apparatus to the endosomes. Promotes neuronal apoptosis by mediating endocytosis of the proapoptotic precursor forms of BDNF (proBDNF) and NGF (proNGF). Also acts as a receptor for neurotensin. May promote mineralization of the extracellular matrix during osteogenic differentiation by scavenging extracellular LPL. Probably required in adipocytes for the formation of specialized storage vesicles containing the glucose transporter SLC2A4/GLUT4 (GLUT4 storage vesicles, or GSVs). These vesicles provide a stable pool of SLC2A4 and confer increased responsiveness to insulin. May also mediate transport from the endoplasmic reticulum to the Golgi.

Subcellular Localization: Golgi apparatus, Golgi stack membrane ; Single-pass type I membrane protein . Endosome membrane ; Single-pass type I membrane protein . Endoplasmic reticulum membrane ; Single-pass type I membrane protein . Nucleus membrane ; Single-pass type I membrane protein . Cell membrane ; Single-pass type I membrane protein ; Extracellular side . Lysosome membrane ; Single-pass type I membrane protein . Note=Localized to membranes of the endoplasmic reticulum, endosomes, Golgi stack, lysosomes and nucleus. A small fraction of the protein is also localized to the plasma membrane. May also be found in SLC2A4/GLUT4 storage vesicles (GSVs) in adipocytes. Localization to the plasma membrane in adipocytes may be enhanced by insulin.

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.