Sortilin/SORT1 (SORT1) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Sortilin/SORT1, Recombinant Protein
Full Product Name	Recombinant Human Sortilin/SORT1 protein (His tag)
Product Gene Name	SORT1 recombinant protein
Product Synonym Names	Sortilin; SORT1; 100 kDa NT receptor; Glycoprotein 95; Gp95; Neurotensin receptor 3; NT3; NTR3
Sequence	Ser78-Asn7 55
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH 7.4.
Purity/Purification	>95 % as determined by reducing SDS-PAGE.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months.
Molecular Weight	831
OMIM	gene 613589
3D Structure	ModBase 3D Structure for Q99523
Species	Human
Tag	C-His
Protein Construction	A DNA sequence encoding the Human SORT1 protein (Q99523)(Ser78-Asn755) was expressed with a C-His.$
Product Categories/Family for SORT1 recombinant protein	Neuroscience
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for SORT1 recombinant protein	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).
Other Notes	Small volumes of SORT1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SORT1 purchase	MBS2571332 is a recombinant protein targeting SORT1. Also known as Recombinant Human Sortilin/SORT1 protein (His tag). Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SORT1. It may not necessarily be applicable to this product.

NCBI GI #	84028263
NCBI GeneID	6272
NCBI Accession #	Q99523.3
UniProt Primary Accession #	Q99523

UniProt Secondary Accession #	Q8IZ49; B4DWI3; C0JYZ0
UniProt Related Accession #	Q99523
NCBI Official Full Name	Sortilin
NCBI Official Synonym Full Names	sortilin 1
NCBI Official Symbol	SORT1
NCBI Official Synonym Symbols	NT3; Gp95; LDLCQ6
UniProt Protein Name	Sortilin
UniProt Synonym Protein Names	100 kDa NT receptor; Glycoprotein 95; Gp95; Neurotensin receptor 3; NT3; NTR3
Protein Family	Sortilin
UniProt Gene Name	SORT1
UniProt Synonym Gene Names	Gp95; NT3; NTR3
UniProt Entry Name	SORT_HUMAN
NCBI Protein Information	sortilin; NTR3; glycoprotein 95; 100 kDa NT receptor; neurotensin receptor 3
NCBI Summary for SORT1	This gene encodes a protein that is a multi-ligand type-1 receptor with similarity to the yeast carboxypeptidase Y sorting receptor Vps10 protein. The encoded protein, a trans-Golgi network (TGN) transmembrane protein, binds a number of unrelated ligands that participate in a wide range of cellular processes; however, it lacks the typical features of a signalling receptor. In the TGN, furin mediates the activation of the mature binding form. The encoded protein consists of a large luminal domain, a single transmembrane segment and short C-terminal cytoplasmic tail. The luminal domain contains a cysteine-rich region similar to two corresponding segments in the yeast Vps10p; the cytoplasmic tail is similar to the corresponding segment of the cation-independent mannose 6-phosphate receptor and the tail also interacts with the VHS domains of GGA (Golgi-associated, gamma-adaptin homologous, ARF-interacting) proteins. [provided by RefSeq, Jul 2008]

UniProt Comments for SORT1	SORT1: 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). 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 NGFB (proNGFB). 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. A common polymorphism located in a non-coding region between CELSR2 and PSRC1 alters a CEBP transcription factor binding site and is responsible for changes in hepatic expression of SORT1. Altered SORT1 expression in liver affects low density lipoprotein cholesterol levels in plasma and is associated with susceptibility to myocardial infarction. Belongs to the VPS10-related sortilin family. SORT1 subfamily. Protein type: Membrane protein, integral; Receptor, misc. Chromosomal Location of Human Ortholog: 1p13.3|1p21.3-p13.1 Cellular Component: Golgi apparatus; endoplasmic reticulum membrane; nuclear membrane; cell surface; clathrin-coated vesicle; lysosomal membrane; early endosome; cytoplasmic membrane-bound vesicle; integral to membrane; coated pit; trans-Golgi network transport vesicle; perinuclear region of cytoplasm; plasma membrane; endosome membrane Molecular Function: protein binding; nerve growth factor receptor activity; enzyme binding; nerve growth factor binding; neurotensin receptor activity, non-G-protein coupled Biological Process: ossification; nerve growth factor receptor signaling pathway; vesicle organization and biogenesis; multicellular organismal development; endosome transport via multivesicular body sorting pathway; myotube differentiation; Golgi to endosome transport; endocytosis; response to insulin stimulus; G-protein coupled receptor protein signaling pathway; induction of apoptosis via death domain receptors; neuropeptide signaling pathway; regulation of gene expression; glucose import; endosome to lysosome transport; plasma membrane to endosome transport; negative regulation of lipoprotein lipase activity Disease: Low Density Lipoprotein Cholesterol Level Quantitative Trait Locus 6
Research Articles on SORT1	**1.** Data demonstrate that the SORT1-PGRN axis is a viable target for PGRN-based therapy, particularly in frontotemporal dementia-GRN patients.
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