SORT1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	SORT1, Monoclonal Antibody
Full Product Name	SORT1 (Sortilin, 100kD NT Receptor, Glycoprotein 95, Gp95, Neurotensin Receptor 3, NT3, NTR3) (MaxLight 490)
Product Gene Name	anti-SORT1 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	1B3
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human SORT1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	84kDa
OMIM	gene 613589
3D Structure	ModBase 3D Structure for Q99523
Immunogen	Partial recombinant corresponding to aa203-300 from human SORT1 (NP_002950) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	FAKNFVQTDLPFHPLTQMMYSPQNSDYLLALSTENGLWVSKNFGGKWEEIHKAVCLAKWGSDNTIFFTTYANGSCKADLGALELWRTSDLGKSFKTI*
Conjugate	MaxLight490
Product Categories/Family for anti-SORT1 antibody	Antibodies; Receptors
Applications Tested/Suitable for anti-SORT1 antibody	FLISA, Western Blot (WB)
Application Notes for anti-SORT1 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-SORT1 antibody	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.
Other Notes	Small volumes of anti-SORT1 antibody 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	MBS6203466 is an antibody targeting SORT1. Also known as SORT1 (Sortilin, 100kD NT Receptor, Glycoprotein 95, Gp95, Neurotensin Receptor 3, NT3, NTR3) (MaxLight 490). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

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

NCBI GI #	17149834
NCBI GeneID	6272
NCBI Accession #	NP_002950
UniProt Primary Accession #	Q99523
UniProt Related Accession #	Q99523
GenBank Nucleotide #	NM_002959
NCBI Official Full Name	sortilin isoform 1 preproprotein
NCBI Official Synonym Full Names	sortilin 1
NCBI Official Symbol	SORT1
NCBI Official Synonym Symbols	NT3; Gp95; NTR3; 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
NCBI Summary for SORT1	This gene encodes a member of the VPS10-related sortilin family of proteins. The encoded preproprotein is proteolytically processed by furin to generate the mature receptor. This receptor plays a role in the trafficking of different proteins to either the cell surface, or subcellular compartments such as lysosomes and endosomes. Expression levels of this gene may influence the risk of myocardial infarction in human patients. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2015]

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.** The rs12740374 minor allele sequence enhances SORT1 expression in hepatocytes. CRISPR-Cas9 can be used in primary human hepatocytes ex vivo and locus-humanized mice in vivo to interrogate the function of noncoding regulatory regions.
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