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NTR3 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58418

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q99523
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92068
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Sortilin/NTR3/Gp95
Epitope Specificity	731-831/831
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single-pass type I membraneprotein. Endoplasmic reticulum membrane; Single-pass type Imembrane protein (Potential). Endosome membrane; Single-pass type Imembrane protein (Potential). Golgi apparatus, Golgi stackmembrane; Single-pass type I membrane protein (Potential). Lysosomemembrane; Single-pass type I membrane protein (Potential). Nucleusmembrane; Single-pass type I membrane protein (Potential). Cellmembrane; Single-pass type I membrane protein; Extracellular side.Lysosome membrane; Single-pass type I membrane protein (Potential).Note=Localized to membranes of the endoplasmic reticulum,endosomes, Golgi stack, lysosomes and nucleus. A small fraction ofthe protein is also localized to the plasma membrane. May also befound in SLC2A4/GLUT4 storage vesicles (GSVs) in adipocytes.Localization to the plasma membrane in adipocytes may be enhancedby insulin.
SIMILARITY	Belongs to the VPS10-related sortilin family. SORT1subfamily. Contains 9 BNR repeats.
SUBUNIT	Interacts with LPL and SLC2A4 (By similarity). Interactswith the cytosolic adapter proteins GGA1 and GGA2. Interacts withnumerous ligands including the receptor-associated proteinLRPAP1/RAP, GM2A, NTS and PSAP. Forms a complex with NGFR whichbinds specifically to the precursor forms of NGFB (proNGFB) andBDNF (proBDNF).
Post-translational modifications	The N-terminal propeptide is cleaved by furin and possiblyother homologous proteases.
DISEASE	Note=A common polymorphism located in a non-coding regionbetween CELSR2 and PSRC1 alters a CEBP transcription factor bindingsite and is responsible for changes in hepatic expression of SORT1.Altered SORT1 expression in liver affects low density lipoproteincholesterol levels in plasma and is associated with susceptibilityto myocardial infarction.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Tissue specificity: Expressed at high levels in brain, spinal cord, heart, skeletal muscle, thyroid, placenta and testis. Expressed at lower levels in lymphoid organs, kidney, colon and liver.

Additional Information

Gene ID	6272
Other Names	Sortilin, 100 kDa NT receptor, Glycoprotein 95, Gp95, Neurotensin receptor 3, NT3, NTR3, SORT1 (HGNC:11186)
Target/Specificity	Expressed at high levels in brain, spinalcord, heart, skeletal muscle, thyroid, placenta and testis.Expressed at lower levels in lymphoid organs, kidney, colon andliver.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SORT1 (HGNC:11186)
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 (PubMed:16787399). 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 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.

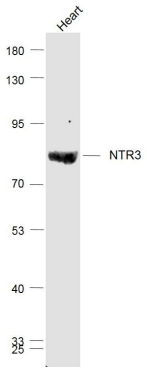
Cellular Location

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

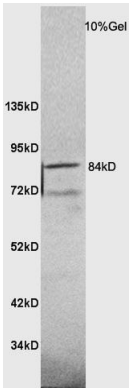
Tissue Location

Expressed in brain and prostate (at protein level). Expressed at high levels in brain, spinal cord, heart, skeletal muscle, thyroid, placenta and testis. Expressed at lower levels in lymphoid organs, kidney, colon and liver.

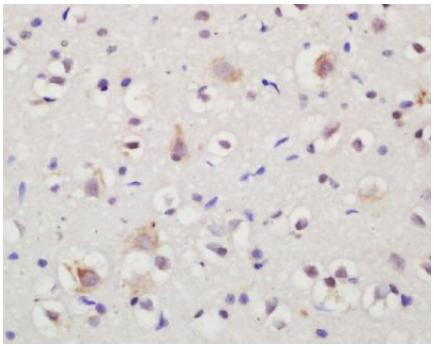
Images



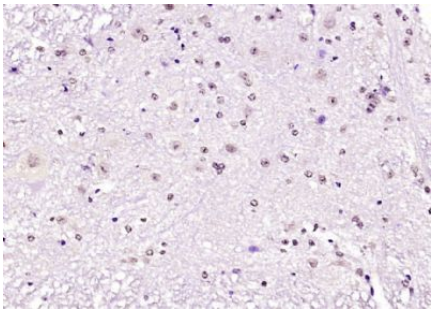
Sample:
Heart (Mouse) Lysate at 40 ug
Primary: Anti-NTR3 (AP58418) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 84 kD
Observed band size: 84 kD



Sample: Brain (Rat) Lysate at 40 ug
Primary: Anti-NTR3 (AP58418) at 1/300 dilution
Secondary: HRP conjugated Goat-Anti-rabbit IgG (bs-0295G-HRP) at 1/5000 dilution
Predicted band size: 84 kD
Observed band size: 84 kD



Tissue/cell: mouse brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-NTR3 Polyclonal Antibody, Unconjugated(AP58418) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (mouse spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NTR3) Polyclonal Antibody, Unconjugated (AP58418) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.