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SNX3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5100

Product Information

Application	WB
Primary Accession	O60493
Other Accession	Q5U211, Q1RMH8, NP_690040.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18762
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	8724
Antigen Region	78-105
Other Names	SNX3; Sorting nexin-3; Protein SDP3
Dilution	WB~~1:500
Target/Specificity	This SNX3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 78-105 amino acids from the Central region of human SNX3.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SNX3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SNX3 {ECO:0000303|PubMed:30213940, ECO:0000312|HGNC:HGNC:11174}
Function	Phosphoinositide-binding protein required for multivesicular body formation. Specifically binds phosphatidylinositol 3-phosphate (PtdIns(P3)).

	Can also bind phosphatidylinositol 4-phosphate (PtdIns(P4)), phosphatidylinositol 5-phosphate (PtdIns(P5)) and phosphatidylinositol 3,5-biphosphate (PtdIns(3,5)P2) (By similarity). Plays a role in protein transport between cellular compartments. Together with RAB7A facilitates endosome membrane association of the retromer cargo-selective subcomplex (CSC/VPS). May in part act as component of the SNX3-retromer complex which mediates the retrograde endosome-to-TGN transport of WLS distinct from the SNX-BAR retromer pathway (PubMed:21725319, PubMed:24344282, PubMed:30213940). Promotes stability and cell surface expression of epithelial sodium channel (ENAC) subunits SCNN1A and SCNN1G (By similarity). Not involved in EGFR degradation. Involved in the regulation of phagocytosis in dendritic cells possibly by regulating EEA1 recruitment to the nascent phagosomes (PubMed:23237080). Involved in iron homeostasis through regulation of endocytic recycling of the transferrin receptor TFRC presumably by delivering the transferrin:transferrin receptor complex to recycling endosomes; the function may involve the CSC retromer subcomplex (By similarity). Involved in regulation of neurite outgrowth in primary neurons (By similarity). Required for trafficking of WLS to the early endosome for recycling which promotes both canonical and non-canonical WNT signaling and is essential for neural tube closure (By similarity).
Cellular Location	Early endosome. Cytoplasmic vesicle, phagosome. Note=Colocalizes to clathrin-coated endosomal vesicles morphologically distinct from retromer-decorated non-branched endosomal tubule structures (PubMed:21725319) Colocalizes with EEA1 on nascent phagosomes in dendritic cells but competes with EEA1 for binding to phagosomal membrane (PubMed:23237080). In the case of Salmonella enterica infection localizes to Salmonella-containing vacuoles (SCVs) from which SNX3-containing tubules form 30-60 minutes after infection (PubMed:20482551).

Background

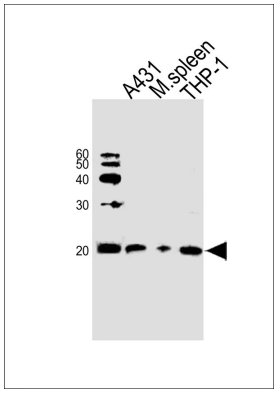
This gene encodes a member of the sorting nexin family. Members of this family contain a phox (PX) domain, which is a phosphoinositide binding domain, and are involved in intracellular trafficking. This protein does not contain a coiled coil region, like most family members. This protein interacts with phosphatidylinositol-3-phosphate, and is involved in protein trafficking.

References

Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Pons, V., et al. PLoS Biol. 6 (9), E214 (2008) :
Vieira, A.R., et al. Genet. Med. 10(9):668-674(2008)
Dong, H., et al. Acta Biochim. Biophys. Sin. (Shanghai) 39(7):540-546(2007)
Kumar, R.A., et al. BMC Med. Genet. 8, 48 (2007) :

Images

Western blot analysis of lysates from A431 cell line,mouse spleen tissue,THP-1 cell line (from left to right), using SNX3 Antibody (Center)(Cat. #AW5100). AW5100 was diluted at 1:500 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



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