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SNX3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51868

Product Information

Application	WB
Primary Accession	O60493
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18762

Additional Information

Gene ID	8724
Other Names	Sorting nexin-3, Protein SDP3, SNX3
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

Phosphoinositide-binding protein required for multivesicular body formation. Specifically binds phosphatidylinositol 3-phosphate (PtdIns(P3)). Plays a role in protein transport between cellular compartments. Promotes stability and cell surface expression of epithelial sodium channel (ENAC) subunits SCNN1A and SCNN1G (By similarity). Not involved in EGFR degradation.

References

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Xu Y.,et al.Nat. Cell Biol. 3:658-666(2001).
Hayama A.,et al.Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
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Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

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