10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SYNJ2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19970c

Product Information

Application	WB, E
Primary Accession	O15056
Other Accession	NP_003889.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41921
Calculated MW	165538
Antigen Region	679-707

Additional Information

Gene ID	8871
Other Names	Synaptojanin-2, Synaptic inositol 1, 5-trisphosphate 5-phosphatase 2, SYNJ2, KIAA0348
Target/Specificity	This SYNJ2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 679-707 amino acids from the Central region of human SYNJ2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	SYNJ2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SYNJ2 (HGNC:11504)
Synonyms	KIAA0348

Function	Phosphatase that hydrolyzes phosphate groups from the inositol ring of phosphoinositides and inositol phosphates, in a domain-specific manner (PubMed:11084340, PubMed:12699622, PubMed:40969890). The 5-PPase domain catalyzes removal of the 5- phosphate from substrates such as phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P2), phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3), inositol-1,4,5-trisphosphate (Ins(1,4,5)P3) and inositol-1,3,4,5-tetrakisphosphate (Ins(1,3,4,5)P4) (PubMed:11084340, PubMed:12699622, PubMed:40969890). The SAC domain hydrolyzes phosphates at the 3- and 4-positions of the inositol ring, targeting phosphatidylinositol-3-phosphate (PI(3)P), phosphatidylinositol-4- phosphate (PI(4)P), and phosphatidylinositol-3,5-bisphosphate (PI(3,5)P2) (By similarity). Plays a role in the phosphatidylinositol metabolic process during the early stage of clathrin-coated-pit formation (PubMed:12699622). During EGF activation, plays a role in receptor-mediated endocytosis (RME) by converting PtdIns(4,5)P2 to PtdIns(4)P through the H2O2-dependent oxidation of the 4-phosphatase domain (By similarity). May play a role in tumor cell invadopodia formation (PubMed:23076136).
Cellular Location	Cytoplasm. Cell membrane. Cell projection, ruffle membrane. Presynapse {ECO:0000250|UniProtKB:O55207}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:O55207}. Note=Localizes at presynapse terminals in brain and at bundles of microtubules surrounding the nucleus in the elongating spermatids corresponding to the manchette (By similarity) Translocates from the cytoplasm to membrane ruffles in a RAC1-dependent manner (PubMed:11084340).

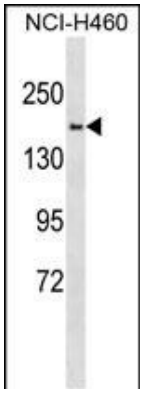
Background

The gene is a member of the inositol-polyphosphate 5-phosphatase family. The encoded protein interacts with the ras-related C3 botulinum toxin substrate 1, which causes translocation of the encoded protein to the plasma membrane where it inhibits clathrin-mediated endocytosis. Alternative splicing results in multiple transcript variants.

References

Rikova, K., et al. Cell 131(6):1190-1203(2007)
Ieguchi, K., et al. J. Biol. Chem. 282(32):23296-23305(2007)
Rossi, M.R., et al. Cancer Genet. Cytogenet. 161(2):97-103(2005)
Chuang, Y.Y., et al. Cancer Res. 64(22):8271-8275(2004)
Spaenij-Dekking, E.H., et al. Leukemia 17(12):2467-2473(2003)

Images



SYNJ2 Antibody (Center) (Cat. #AP19970c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the SYNJ2 antibody detected the SYNJ2 protein (arrow).

Citations

- A short deletion in the DNA-binding domain of STAT3 suppresses growth and progression of colon cancer cells

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.