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Synaptojanin 2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54475

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	O15056
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	165538

Additional Information

Gene ID	8871
Other Names	Synaptojanin-2, 3.1.3.36, Synaptic inositol 1, 4, 5-trisphosphate 5-phosphatase 2, SYNJ2, KIAA0348
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	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).

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