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FIG4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP18145b

Specification

FIG4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q92562

FIG4 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 9896

Other Names
Polyphosphoinositide phosphatase, 313-, Phosphatidylinositol 3, 5-bisphosphate 5-phosphatase, SAC domain-containing protein 3, FIG4, KIAA0274, SAC3

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FIG4 Antibody (C-term) Blocking Peptide - Protein Information

Name FIG4 (HGNC:16873)

Function
Dual specificity phosphatase component of the PI(3,5)P2 regulatory complex which regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) (PubMed:17556371, PubMed:33098764). Catalyzes the dephosphorylation of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) to form phosphatidylinositol 3-phosphate (PubMed:33098764). Has serine-protein phosphatase activity acting on PIKfyve to stimulate its lipid kinase activity, its catalytically activity being required for maximal PI(3,5)P2 production (PubMed:33098764). In vitro, hydrolyzes all three D5-phosphorylated polyphosphoinositide and although displaying preferences for PtdIns(3,5)P2, it is capable of hydrolyzing PtdIns(3,4,5)P3 and PtdIns(4,5)P2, at least in vitro (PubMed:17556371).

Cellular Location
Endosome membrane. Note=Localization requires VAC14 and PIKFYVE

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FIG4 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

FIG4 Antibody (C-term) Blocking Peptide - Images

FIG4 Antibody (C-term) Blocking Peptide - Background

The protein encoded by this gene belongs to the SACdomain-containing protein gene family. The SAC domain,approximately 400 amino acids in length and consisting of sevenconserved motifs, has been shown to possess phosphoinositidephosphatase activity. The yeast homolog, Sac1p, is involved in theregulation of various phosphoinositides, and affects diversecellular functions such as actin cytoskeleton organization, Golgifunction, and maintenance of vacuole morphology. Membrane-boundphosphoinositides function as signaling molecules and play a keyrole in vesicle trafficking in eukaryotic cells. Mutations in thisgene have been associated with Charcot-Marie-Tooth disease, type4J.

FIG4 Antibody (C-term) Blocking Peptide - References

Ikonomov, O.C., et al. J. Biol. Chem. 285(35):26760-26764(2010)Tsai, C.P., et al. Neurobiol. Aging (2010) In press :Ikonomov, O.C., et al. J. Biol. Chem. 284(51):35794-35806(2009)Soranzo, N., et al. Nat. Genet. 41(11):1182-1190(2009)Trynka, G., et al. Gut 58(8):1078-1083(2009)