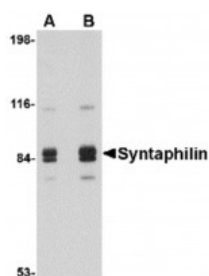


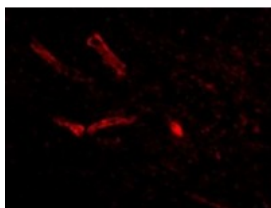


Syntaphilin Antibody

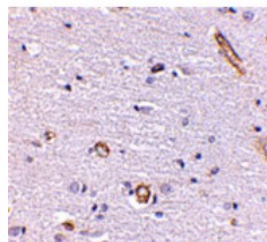
CATALOG NUMBER: 4635



Western blot analysis of Syntaphilin in rat brain tissue lysate with Syntaphilin antibody at (A) 1 and (B) 2 ug/mL.



Immunofluorescence of Syntaphilin in Human Brain cells with Syntaphilin antibody at 20 ug/mL.



Immunohistochemistry of Syntaphilin in human brain with Syntaphilin antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	Syntaphilin antibody can be used for detection of Syntaphilin by Western blot at 1 - 2 ug/mL. Despite its predicted molecular weight, Syntaphilin usually migrates at higher molecular weight in SDS-PAGE. Antibody can also be used for immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1463 - Rat Brain Tissue Lysate
IMMUNOGEN:	Syntaphilin antibody was raised against a 16 amino acid synthetic peptide from near the center of human Syntaphilin. The immunogen is located within amino acids 350 - 400 of Syntaphilin.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Syntaphilin Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	Syntaphilin Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	Syntaphilin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	Syntaphilin Antibody: bA314N13.5, KIAA0374, Syntaphilin
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ACCESSION NO.:	O15079
PROTEIN GI NO.:	21362912
OFFICIAL SYMBOL:	SNPH
GENE ID:	9751

Background

BACKGROUND: Syntaphilin Antibody: Syntaphilin was initially identified in a yeast two-hybrid screen with the carboxy terminal region of Syntaxin-1 as bait. Syntaxin-1 is a key component of the synaptic vesicle docking machinery that forms the SNARE complex with synaptobrevin and SNAP-25. Syntaphilin competes with SNAP-25 for binding to syntaxin-1 and inhibits the formation of the SNARE complex, thereby potentially regulating synaptic vesicle exocytosis. Syntaphilin also binds dynamin-1 and inhibits dynamin-dependent endocytosis. Mice lacking syntaphilin show an increased level of mitochondrial motility and a reduced density of axonal mitochondria. This correlates with an enhanced short-term facilitation and significant impairments in motor ability, suggesting syntaphilin plays a major role in presynaptic function. Multiple isoforms are known to exist.

REFERENCES:

- 1) Lao G, Scheuss V, Gerwin CM, et al. Syntaphilin: a syntaxin-1 clamp that controls SNARE assembly. *Neuron*2000; 25:191-201.
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- 3) Das S, Gerwin C, and Sheng ZH. Syntaphilin binds to dynamin-1 and inhibits dynamin-dependent endocytosis. *J. Biol. Chem.*2003; 278:41221-6.
- 4) Kang J-S, Tian J-H, Pan P-Y, et al. Docking of axonal mitochondria by syntaphilin controls their mobility and affects short-term facilitation. *Cell*2008; 132:137-148.

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December 13, 2016