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

Syntaphilin Antibody
Catalog # ASC10707

Specification

Syntaphilin Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	O15079
Other Accession	O15079, 21362912
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Syntaphilin antibody can be used for detection of Syntaphilin by Western blot at 1 - 2 µg/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 µg/mL. For immunofluorescence start at 20 µg/mL.**

Syntaphilin Antibody - Additional Information

Gene ID	**9751**

Target/Specificity
SNPH;

Reconstitution & Storage
Syntaphilin antibody can be stored at 4℃ for three months and -20℃, 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.

Precautions
Syntaphilin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Syntaphilin Antibody - Protein Information

Name SNPH (HGNC:15931)

Synonyms KIAA0374

Function
Inhibits SNARE complex formation by absorbing free STX1A.

Cellular Location
Membrane; Single-pass membrane protein. Synapse, synaptosome

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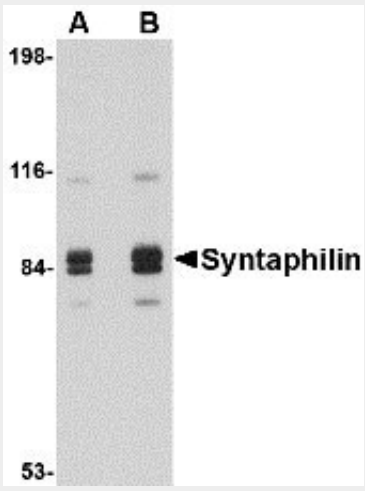
Tissue Location
Brain specific. Found in synapses.

Syntaphilin Antibody - Protocols

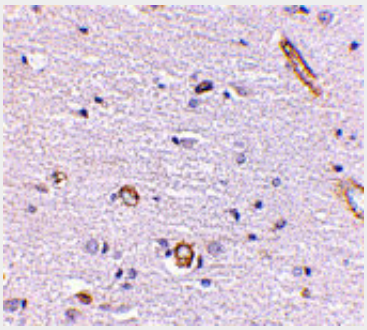
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Syntaphilin Antibody - Images



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



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

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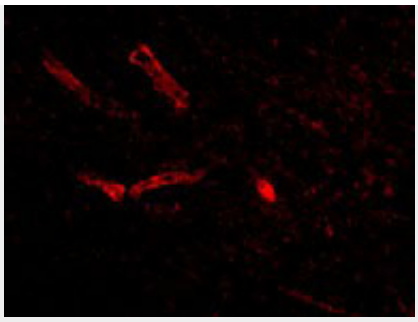

Immunofluorescence of Syntaphilin in Human Brain cells with Syntaphilin antibody at 20 µg/mL.

Syntaphilin Antibody - 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.

Syntaphilin Antibody - References

Lao G, Scheuss V, Gerwin CM, et al. Syntaphilin: a syntaxin-1 clamp that controls SNARE assembly. Neuron2000; 25:191-201.
Sorensen JB. SNARE complexes prepare for membrane fusion. Trends Neurosci.2005; 28:453-5.
Das S, Gerwin C, and Sheng ZH. Syntaphilin binds to dynamin-1 and inhibits dynamin-dependent endocytosis. J. Biol. Chem.2003; 278:41221-6.
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. Cell2008; 132:137-148.