

Syntaphilin (NT) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat Syntaphilin (SNPH)

Instruction Manual

Catalog Number	PK-AB718-4617
Synonyms	Syntaphilin Antibody: SNPH
Description	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. Despite its predicted molecular weight, Syntaphilin usually migrates at higher molecular weight in SDS-PAGE. Multiple isoforms are known to exist.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	Syntaphilin antibody was raised in rabbits against an 18 amino acid peptide from near the amino terminus of human Syntaphilin.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. Syntaphilin antibody can be used for detection of Syntaphilin by Western blot at 2 - 4 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.
Images	Available upon request.
References	Lao G, Scheuss V, Gerwin CM, et al. Syntaphilin: a syntaxin-1 clamp that controls SNARE assembly. <i>Neuron</i> 2000; 25:191-201. Sorensen JB. SNARE complexes prepare for membrane fusion. <i>Trends Neurosci.</i> 2005; 28:453-5. Das S, Gerwin C, and Sheng ZH. Syntaphilin binds to dynamin-1 and inhibits dynamin-dependent endocytosis. <i>J. Biol. Chem.</i> 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. <i>Cell</i> 2008; 132:137-148.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4617P; Syntaphilin Peptide Cat. No. PK-AB718-1303; Human Brain Tissue Lysate

FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC PROCEDURES.