Product Datasheet

Synapsin I Antibody - Azide Free
NB300-104-100ul

Unit Size: 100 ul

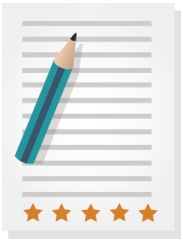
Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 53

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB300-104

Updated 8/21/2025 v.20.1



NB300-104-100ul

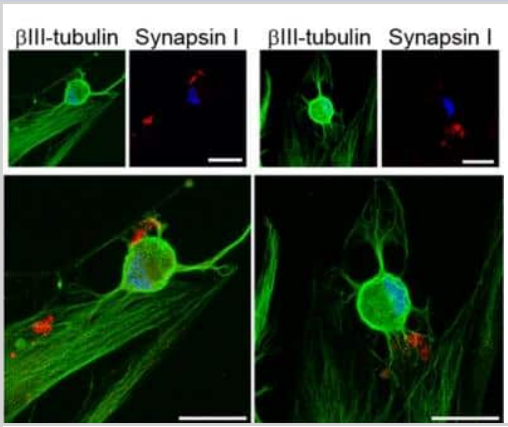
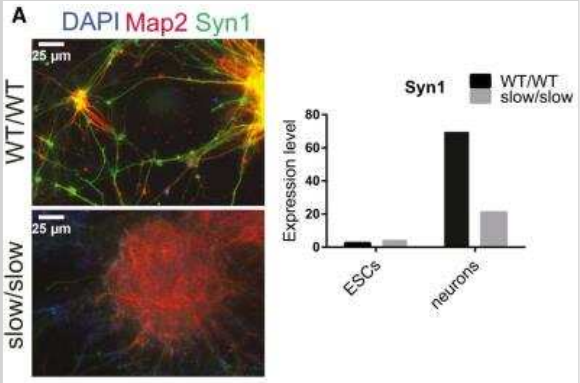
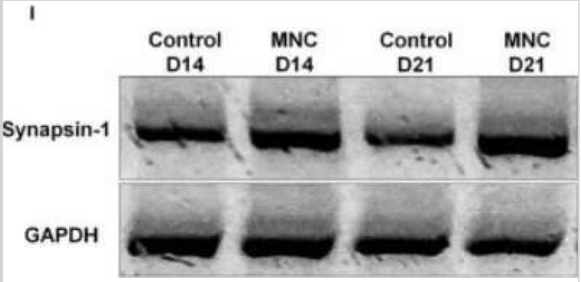
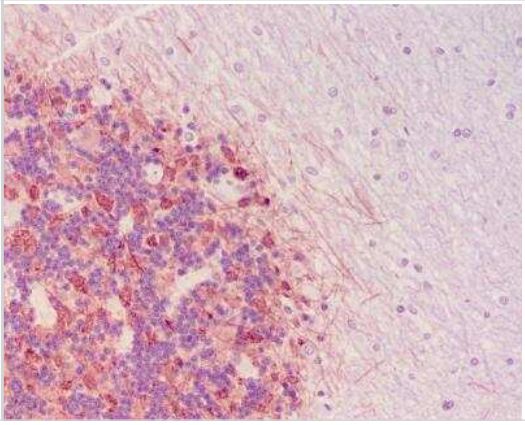
Synapsin I Antibody - Azide Free

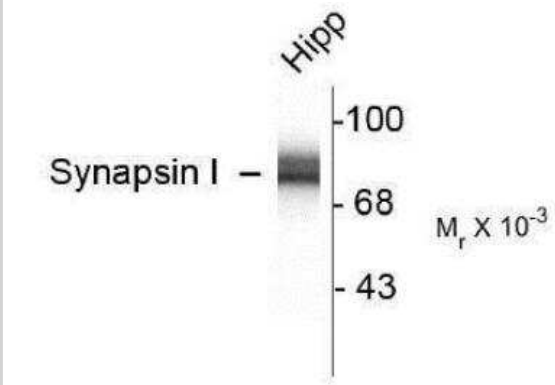
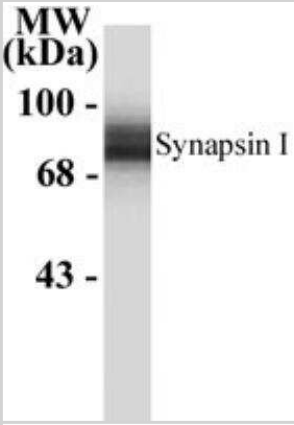
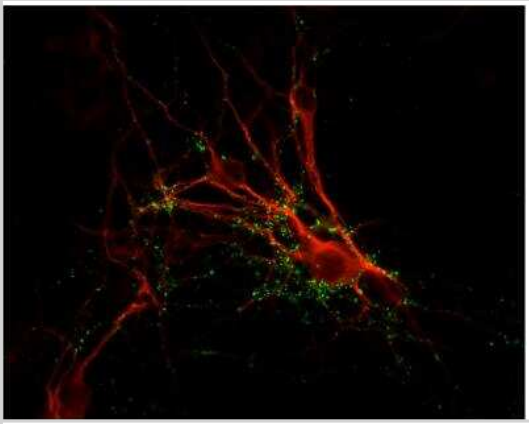
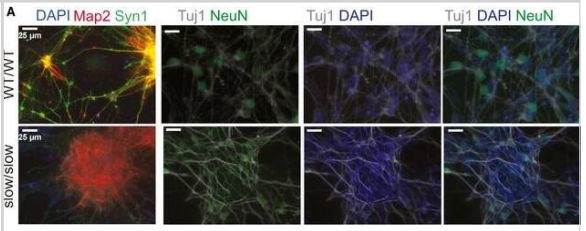
Product Information	
Unit Size	100 ul
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	10mM HEPES (pH 7.5), 0.15M NaCl, 0.1 mg/ml BSA and 50% Glycerol
Target Molecular Weight	78 kDa

Product Description	
Description	PLEASE NOTE: If 0.01mg size is ordered, product will come lyophilized from 5 mM ammonium bicarbonate. Please reconstitute lyophilized product in 50 ul phosphate buffered saline (PBS: 137 mM NaCl, 7.5 mM Na2HPO4, 2.7 mM KCl, 1.5 mM KH2PO4, pH 7.4)
Host	Rabbit
Gene ID	6853
Gene Symbol	SYN1
Species	Human, Mouse, Rat, Guinea Pig, Primate
Reactivity Notes	Primate reactivity reported in scientific literature (PMID: 20384782). Guinea Pig reactivity reported in scientific literature (PMID: 25339870).
Marker	pre-Synaptic Marker
Specificity/Sensitivity	Specific for endogenous levels of the ~78 kDa synapsin I doublet. Immunolabeling blocked by preadsorption of antibody with the protein used to generate the antibody.
Immunogen	Native protein purified from bovine brain. Accession # P17599

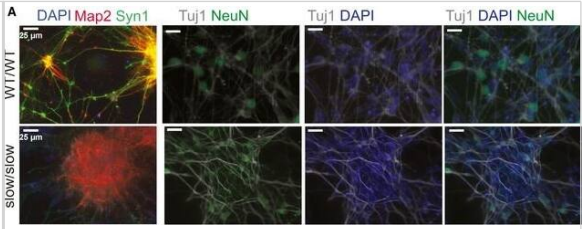
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:1000, Immunoprecipitation 1 ug per 200ug lysate, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen 1:10-1:500, Immunohistochemistry Free-Floating
Application Notes	NB 300-104 can be used in Western blot where a doublet is seen at ~ 80 kDa representing synapsin Ia and Ib. Immunofluoresence, Immunoprecipitation (1 ug will quantitatively immunoprecipitate all synapsin in 200 ug of rat brain.) May work in IHC-Paraffin but this has not been tested. Differential distribution of the synapsins in the rat olfactory bulb. Has been reported in the literature to work in WB (rat cortex), IHC (cryosections) on rat olfacotry bulb. (PMID: 8283238) Use in Immunohistochemistry free floating reported in multiple pieces of scientific literature .

Images

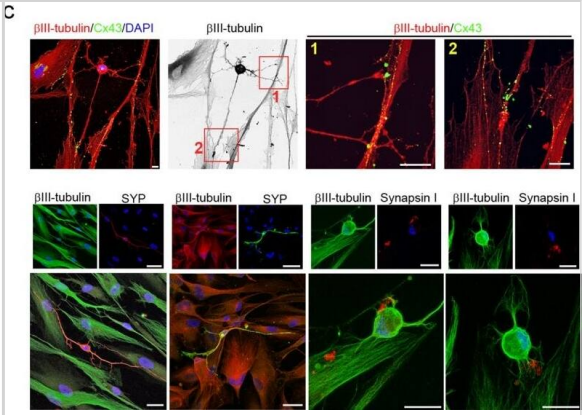
Immunocytochemistry/Immunofluorescence: Synapsin I Antibody [NB300-104] - hPDLSCs-derived neural-like cells are connected by synapse-like interactions. hPDLSCs-derived neural-like cells connect to one another. Synapse-associated protein Synapsin1 is found in the cell membrane of hPDLSCs-derived neural-like cells at the neurite contact areas. Scale bar: 25 um. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/s41598-019-54745-3) licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: Synapsin I Antibody [NB300-104] - Characterization of WT and slow ESCs differentiated to neurons. Immunofluorescence staining for neuronal markers Map2, and Syn1 in neurons cultured on poly-ornithine-/laminin-coated plates. Expression of neuronal markers in neurons cultured on poly-ornithine-/laminin-coated plates from RNA-seq analysis, n = 3. Image collected and cropped by CiteAb from the following publication (https://onlinelibrary.wiley.com/doi/10.15252/embj.2018101244) licensed under a CC-BY license.	
Western Blot: Synapsin I Antibody [NB300-104] - Western blot analysis showing induced expression of neuronal functional marker Synapsin I at protein levels in MNC (meningial neuronal construct). Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/30443545/) licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: Synapsin I Antibody [NB300-104] - Human cerebellum section, formalin fixed paraffin embedded. Stained with Synpasin-1 at 1:250. Citrate antigen retrieval at pH 6. Image from verified customer review.	

Western Blot: Synapsin I Antibody [NB300-104] - 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~78k synapsin I doublet protein.	
Western Blot: Synapsin I Antibody [NB300-104] - 10 ug of rat brain lysate showing specific immunolabeling of the ~78 kDa Synapsin I doublet.	
Immunocytochemistry/Immunofluorescence: Synapsin I Antibody [NB300-104] - ICC-IF validation analysis of Synapsin 1 Antibody on cultured rat caudate neurons. This representative image shows the punctate distribution of Synapsin 1 (green) and MAP (red) proteins in a neuronal cell.	
Characterization of WT and slow ESCs differentiated to neurons (related to Fig 4)Immunofluorescence staining for neuronal markers Map2, Syn1, and NeuN in neurons cultured on poly□ornithine□/laminin□coated plates.Expression of neuronal markers in neurons cultured on poly□ornithine□/laminin□coated plates from RNA□seq analysis, n = 3.	

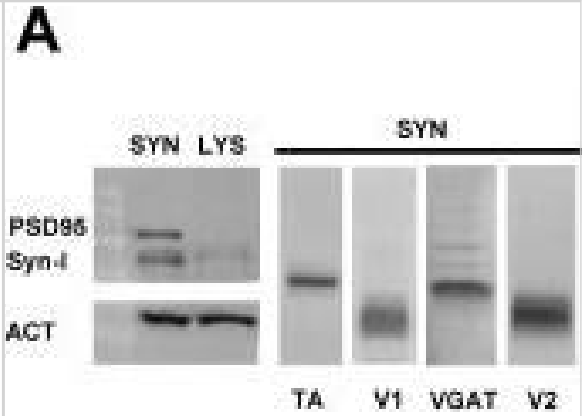
Immunocytochemistry/ Immunofluorescence: Synapsin I Antibody [NB300-104] - Characterization of WT & slow ESCs differentiated to neurons (related to Fig 4)Immunofluorescence staining for neuronal markers Map2, Syn1, & NeuN in neurons cultured on poly□ornithine□/laminin□coated plates.Expression of neuronal markers in neurons cultured on poly□ornithine□/laminin□coated plates from RNA□seq analysis, n = 3. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30988016), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



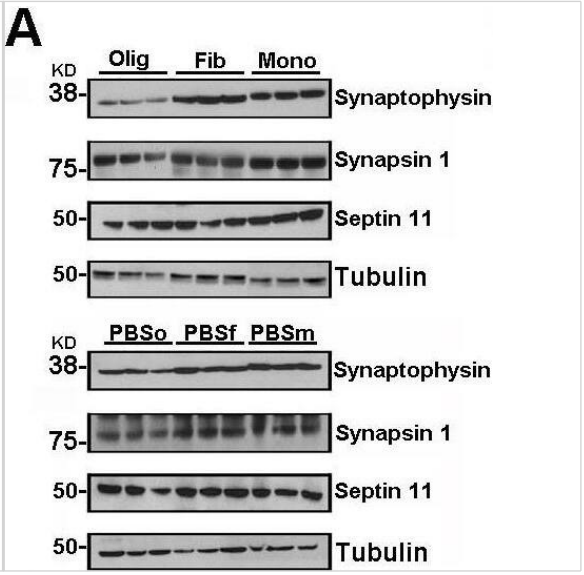
Immunocytochemistry/ Immunofluorescence: Synapsin I Antibody [NB300-104] - hPDLSCs-derived neural-like cells are connected by synapse-like interactions. hPDLSCs-derived neural-like cells connect to one another (a) through different types of synapses-like interactions, including dendrodendritic-like, axoaxonic-like & axodendritic-like synapses (b). (c) Synapse-associated proteins Cx43, Synaptophysin & Synapsin1 are found in the cell membrane of hPDLSCs-derived neural-like cells at the neurite contact areas. Scale bar: 25 μm. AA, axoaxonic-like synapse; AD, axodendritic-like synapse; DD, dendrodendritic-like synapse; LM, light microscopy; SEM, scanning electron microscopy. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31792338), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Synapsin I Antibody [NB300-104] - Synaptic localization of TA at the PC–PF synaptic contacts.Western blot of TA, V1, V2, VGAT proteins in cerebellar synaptosomal fractions (SYN) from P14 mice. Synaptosomal preparations are enriched of post synaptic density protein (PSD95) & Synapsin-I (Syn-I) in comparison to equal amount (ACT) of total cerebellar protein extract (LYS). TA is clearly present in synaptosomal enriched preparations. B) Cerebellar sagittal section immunostained for Cb (green), V1 (cyan) & TA (red). In the ML, anti-V1 specifically labels PF-terminals contacting PC-spines. C–E) The high magnification of the inset in B is reproduced in different merge images & by the relative split channels. C) Merge image of Cb & V1 staining plus the colocalization mask Cb/V1 (mCb/V1 in white); it represents the negative CTR (CTR-). D) Merge image of TA & Cb staining plus the colocalization mask TA/Cb (mTA/Cb in white), highlighting TA expression in PC-spines. E) Merge image of TA & V1 staining plus the colocalization mask TA/V1 (m TA/V1 in white), indicating the presence of TA also in this synaptic terminal. F) Quantitative colocalization analysis shows the mean overlap coefficients of TA/Cb (gray column) & TA/V1 (black column) significantly different from the negative CTR Cb/V1 (white column). The small insets (white boxes in C–D-E) are high magnifications of a representative PC-spine (green) contacted by a PF synaptic terminal (cyan) with the appropriate colocalization mask (white). * $p < 0.05$. Data are represented as mean ± SEM. Scale bars in B, 10 μm; in C–D-E, 5 μm; in F, 1 μm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/23840813), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Synapsin I Antibody [NB300-104] - Tau oligomers induce synaptic dysfunction. (A) Representative Western blot of mouse hippocampus homogenate. The levels of synaptophysin, synapsin-1, & septin-11 were measured by band quantification & normalized with the levels of tubulin. PBSo indicates representative bands of hippocampal area injected with PBS in mice also injected with tau oligomers, PBSf indicates PBS injection in mice also injected with tau fibrils, & PBSm indicates PBS injection in mice also injected with tau monomers. (B) Synaptophysin levels were significantly lower in the hemispheres injected with tau oligomers in comparison with the ones injected with fibrils, monomers, or PBS. (C) No significant differences in the levels of synapsin-1 were observed. (D) Only the hemisphere injected with tau oligomers presents a decrease in the level of septin-11. Data are represented as the mean ± SE. *p < 0.01, n = 6 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/21645391), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Hei Ming Lai, Yumi Tang, Zachary Y H Lau, Robert A A Campbell, Juno C N Yau, Caleb C Y Chan, Danny C W Chan, Tin Yan Wong, Harriet K T Wong, Leo Y C Yan, William K K Wu, Sunny H Wong, Ka-Wai Kwok, Yun-Kwok Wing, Henry H N Lam, Ho-Keung Ng, Thomas D Mrsic-Flogel, Vincent C T Mok, Jason Y K Chan, Ho Ko Antibody stabilization for thermally accelerated deep immunostaining. Nature methods 2022-09-14 [PMID: 36050489]

tepánková K, Chudí?ková M, imková Z et al. Low oral dose of 4-methylumbelliferone reduces glial scar but is insufficient to induce functional recovery after spinal cord injury Scientific reports 2023-11-06 [PMID: 37932336] (IHC, Rat)

tepánková K, Chudí?ková M, imková Z et al. Oral administration of 4-methylumbelliferone reduces glial scar and promotes anatomical plasticity bioRxiv 2023-02-04 (IHC-FrFl, Rat)

Tang C, Liu M, Zhou Z et al. Treadmill Exercise Alleviates Cognition Disorder by Activating the FNDC5: Dual Role of Integrin ?V/?5 in Parkinsons Disease International Journal of Molecular Sciences 2023-04-25 [PMID: 37175535] (Western Blot, Mouse)

Karliner J, Merry DE Differentiating PC12 cells to evaluate neurite densities through live-cell imaging STAR protocols 2023-01-04 [PMID: 36602900] (WB, ICC/IF, Rat)

Details:
Dilution used in WB and ICC/IF 1:1000

Bueno C, Martinez-Morga M, et al. Non-proliferative neurogenesis in human periodontal ligament stem cells. Sci Rep 2019-12-02 [PMID: 31792338] (ICC/IF, Human)

Vishwakarma S. K, Bardia A, et al. Bioengineering Human Neurological Constructs Using Decellularized Meningeal Scaffolds for Application in Spinal Cord Injury. Front Bioeng Biotechnol 2018-11-18 [PMID: 30443545] (WB, IF/IHC, Human)

Ma KG, Hu HB, Zhou JS Et al. Neuronal Glypican4 promotes mossy fiber sprouting through the mTOR pathway after pilocarpine-induced status epilepticus in mice Experimental neurology 2021-11-05 [PMID: 34748756] (WB, IF/IHC, Mouse)

Rizzo FR, Guadalupi L, Sanna K Et al. Exercise protects from hippocampal inflammation and neurodegeneration in experimental autoimmune encephalomyelitis Brain, behavior, and immunity 2021-08-12 [PMID: 34391817] (WB, Mouse)

Yang Y, Zhang J, Yang X et al. Dysregulated APP expression and alpha-secretase processing of APP is involved in manganese-induced cognitive impairment Ecotoxicology and environmental safety 2021-05-28 [PMID: 34058678] (ICC/IF, WB, Mouse)

Lamotte J, Roqueviere S, Gautier H, et al. hiPSC-Derived Neurons Provide a Robust and Physiologically Relevant In Vitro Platform to Test Botulinum Neurotoxins Frontiers in Pharmacology 2021-01-14 [PMID: 33519485] (ICC/IF, Human)

Lin L, Petralia RS, Lake R et al. A novel structure associated with aging is augmented in the DPP6-KO mouse brain Acta Neuropathol Commun 2020-11-23 [PMID: 33225987] (IF/IHC, Mouse)

Details:
DPP6-KO and wild type mice hippocampi were analyzed via immunohistochemistry

More publications at http://www.novusbio.com/NB300-104

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB300-104-100ul

NBP2-10390	Synapsin I Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB300-104

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications