abcam

ab254349

Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker

Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) is a rabbit monoclonal antibody detecting Synapsin I in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, IHC-Fr, ICC/IF, mIHC**. Suitable for **Human, Mouse, Rat**.

- Multiplex IHC validated on the Leica BOND® MAX using Opal reagents
- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Lab Essentials | Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23531-50
Purification technique	Affinity purification Protein A
Concentration	0.506 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Species	Rat
Dilution info	1/30
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/100

Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Species	Rat
Dilution info	1/100
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Expected

Species	Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

mIHC

Tested

Species	Human
Dilution info	-
Notes	-

Species	Mouse

Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information SYN1

Function	Neuronal phosphoprotein that coats synaptic vesicles, and binds to the cytoskeleton. Acts as a regulator of synaptic vesicles trafficking, involved in the control of neurotransmitter release at the pre-synaptic terminal (PubMed:21441247, PubMed:23406870). Also involved in the regulation of axon outgrowth and synaptogenesis (By similarity). The complex formed with NOS1 and CAPON proteins is necessary for specific nitric-oxid functions at a presynaptic level (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?

Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) is a rabbit recombinant monoclonal antibody

and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr), Immunocytochemistry/immunofluorescence (ICC/IF), Multiplex IHC (mIHC) in Human, Mouse, Rat samples.

What is the molecular weight of Synapsin I?
Anti-Synapsin I [EPR23531-50] - Synaptic Marker (ab254349) specifically detects a band for Synapsin I (UniProt: O88935) at a molecular weight of 74kDa.

Trusted by the scientific community
Anti-Synapsin I [EPR23531-50] - Synaptic Marker (ab254349) was first used in a scientific publication in 2020 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR23531-50] also available for your convenience: ab254349, Carrier free - ab274430, PE - ab317882, APC - ab317918, Alexa Fluor® 750 - ab321505, Alexa Fluor® 647 - ab305212

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Synapsin I also known as SYN1 plays an important role in synaptic function. It is a phosphoprotein with a molecular mass of approximately 78 kDa. Synapsin I is expressed mainly in the neurons of the central nervous system (CNS). It binds to synaptic vesicles and actin cytoskeleton which suggests that it functions in modulating neurotransmitter release at the presynaptic terminals. This modulation occurs as synapsin I undergoes phosphorylation which is critical for its activity.
Biological function summary	Synapsin I influences synaptic plasticity and is part of the synaptic vesicle trafficking complex. In its dephosphorylated state Synapsin I associates with synaptic vesicles anchoring them to the actin cytoskeleton. Upon phosphorylation Synapsin I changes conformation causing vesicles to mobilize. This activity

	supports the modulation of neurotransmitter release impacting learning and memory functions.
Pathways	Synapsin I participates significantly in the neurotransmitter release cycle and synaptic vesicle trafficking pathway. Protein kinase A (PKA) and Ca2+/calmodulin-dependent protein kinase II (CaMKII) regulate its phosphorylation affecting how Synapsin I contributes to vesicle release. The phosphorylation of Synapsin I at sites such as serine 9 enables its interaction with other proteins like actin and spectrin facilitating vesicle movement.
Associated diseases and disorders	Altered Synapsin I expression associates with neurological conditions like epilepsy and schizophrenia. In epilepsy dysregulation of Synapsin I phosphorylation processes can result in imbalanced neurotransmitter release potentially leading to seizures. Its connection to schizophrenia involves changes in synaptic plasticity which neurotransmitter systems such as dopamine and related proteins like alpha-synuclein also influence. Understanding these interactions can aid in developing therapeutic strategies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

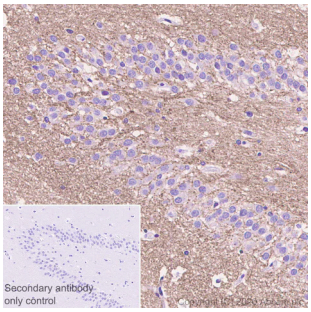
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

22 product images

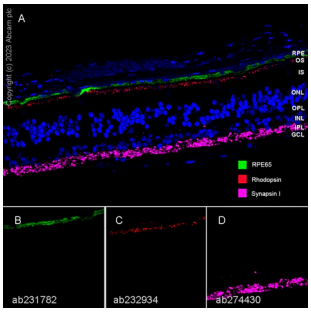


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of paraffin-embedded Human hippocampus tissue labeling Synapsin-1 with ab254349 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in human hippocampus (PMID: 22900032). The section was incubated with ab254349 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Multiplex immunohistochemistry - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded Human retina tissue labeling RPE65, Rhodopsin and Synapsin I with ab231782 at 1/8000 dilution, ab232934 at 1/8000 dilution and ab274430 at 1/1500 dilution followed by a ready to use Opal Polymer HRP Ms + Rb secondary antibody. Nuclear counter stain used was DAPI. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins Panel A: merged staining of anti-Synapsin I (magenta; Opal™690), anti-RPE65 (green; Opal™520) and anti-Rhodopsin (red; Opal™570) on human retina. Panel B: anti-RPE65 stained on pigmented layer. Panel C: anti-Rhodopsin stained on rod photoreceptor cells. Panel D: anti-Synapsin I stained on inner plexiform layer. The section was incubated in three rounds of staining: in the order of ab274430, ab231782, and ab232934 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. The section was incubated in three rounds of staining: in the order of ab312840, ab16669, and ab236434 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

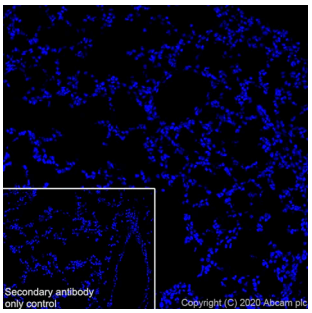


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human brain tissue using rabbit Anti-Synapsin I antibody

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Paraffin embedded human brain tissue slides were dewaxed, followed by heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, Epitope Retrieval ER2 Solution) for 20 mins. Endogenous peroxidase activity was blocked with 3% H2O2 for 10 mins. The sections were then incubated with ab254349 (1/1000) at room temperature for 30 mins, followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). The sections were counterstained with Hematoxylin. The images were taken with a Leica Aperio AT2.

ab254349 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in IHC-P. The image shows the staining intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam's transition from cold chain to ambient shipping.

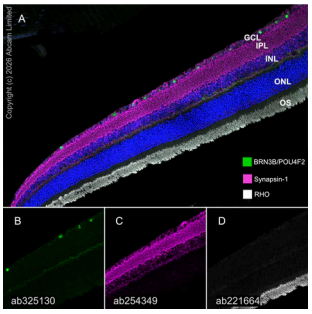


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse lung tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). **Negative control:** no staining on mouse lung (PMID: 9539796) is observed. The nuclear counterstain was DAPI (Blue). Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Multiplex immunohistochemistry - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Multiplex immunohistochemistry staining of Mouse retina using rabbit Anti-Synapsin I antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded mouse retina tissue staining BRN3B/POU4F2 with ab325130 at a 1/2000 dilution (1.05 µg/ml), ab254349 anti-Synapsin-1 at a 1/1000 dilution (0.507 µg/ml) and ab221664 anti-RHO at a 1/27000 dilution (0.015 µg/ml).
Panel A: merged staining of anti-BRN3B/POU4F2 (green; Opal™570), anti-Synapsin-1 (magenta; Opal™690) and anti-RHO (gray; Opal™520) on mouse retina.

Panel B: anti-BRN3B/POU4F2 staining ganglion cell layer in mouse retina.

Panel C: anti-Synapsin-1 staining inner plexiform layer in mouse retina.

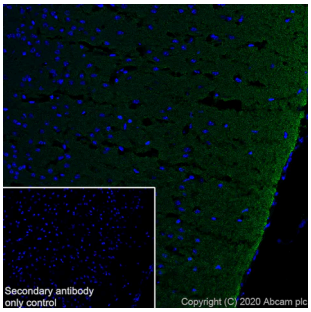
Panel D: anti-RHO staining rod-shaped photoreceptor cells in mouse retina.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab325130, ab254349 and ab221664 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit using Opal Polymer HRP Ms + Rb secondary reagent. Image acquisition was performed with a Leica STELLARIS confocal microscope.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.

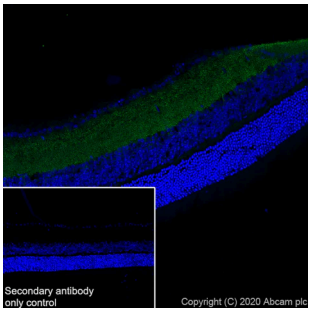


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). Positive staining on mouse cerebrum is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

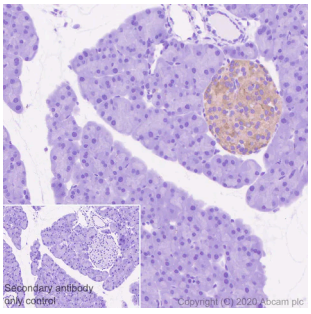


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse retina tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). Positive staining on mouse retina is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

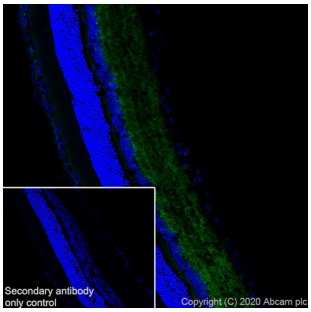


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of paraffin-embedded Mouse pancreas tissue labeling Synapsin-1 with ab254349 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in mouse pancreatic islets (PMID: 22334712). The section was incubated with ab254349 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

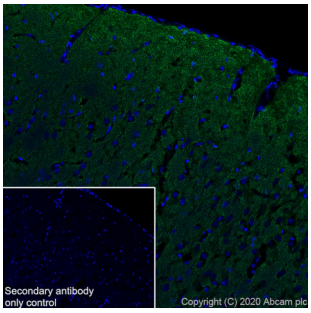


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat retina tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). Positive staining on rat retina is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

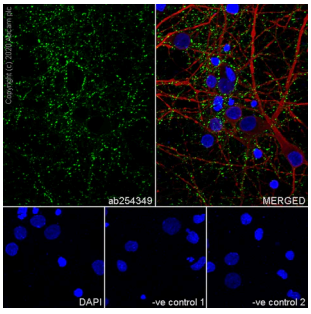


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebrum tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). Positive staining on rat cerebrum is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

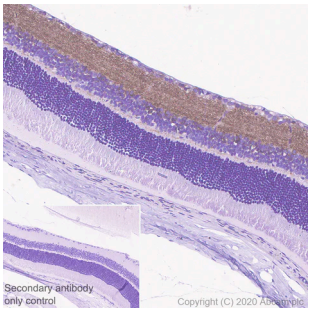


Immunocytochemistry/ Immunofluorescence - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Synapsin I antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized rat primary neuron cells labelling Synapsin-1 with ab254349 at 1/500 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in rat primary neuron.Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain MAP2 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).
-ve control 1: ab254349 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution.

-ve control 2: ab11267 at 1/500 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution.

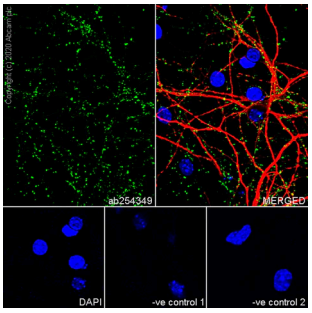


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of paraffin-embedded Rat retina tissue labeling Synapsin-1 with ab254349 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in rat retina (PMID: 2124189). The section was incubated with ab254349 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

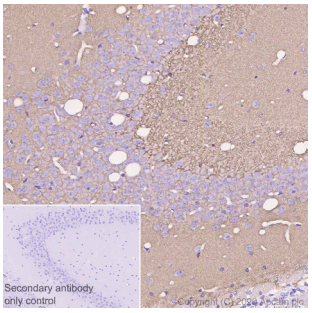


Immunocytochemistry/ Immunofluorescence - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Synapsin I antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized mouse primary neuron cells labelling Synapsin-1 with ab254349 at 1/500 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in mouse primary neuron. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain MAP2 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).
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-ve control 2: ab11267 at 1/500 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution.

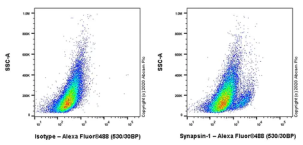


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of paraffin-embedded Mouse hippocampus tissue labeling Synapsin-1 with ab254349 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in mouse hippocampus (PMID: 22900032). The section was incubated with ab254349 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

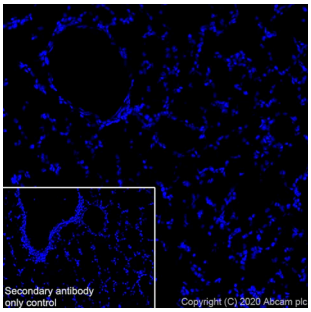
Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Flow Cytometry (Intracellular) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Flow Cytometry (Intracellular) staining using rabbit Anti-Synapsin I antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 0.1% Tween-20 permeabilized Mouse primary brain cells cells labelling Synapsin-1 with ab254349 at 1/50 dilution (1ug) (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

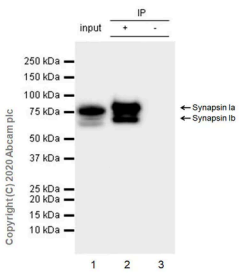


Immunohistochemistry (Frozen sections) - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Immunohistochemistry (Frozen sections) staining using rabbit Anti-Synapsin I antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat lung tissue labeling Synapsin-1 with ab254349 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). **Negative control:** no staining on rat lung (PMID: 9539796) is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunoprecipitation - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin-1 was immunoprecipitated from 0.35 mg Mouse brain tissue lysate with ab254349 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab254349 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/1000 dilution.
Lane 1: Mouse brain tissue lysate 10 ug

Lane 2: ab254349 IP in Mouse brain tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab254349 in mouse brain tissue lysate

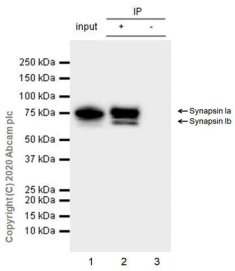
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

All lanes:
Immunoprecipitation - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Predicted band size: 74 kDa

Observed band size: 70 kDa, 75 kDa



Immunoprecipitation - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin-1 was immunoprecipitated from 0.35 mg Rat brain tissue lysate with ab254349 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab254349 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/1000 dilution.
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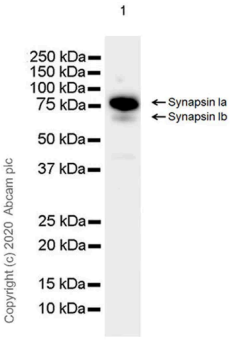
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

All lanes:
Immunoprecipitation - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Predicted band size: 74 kDa

Observed band size: 70 kDa, 75 kDa



Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 15 seconds.

All lanes:
Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) at 1/1000 dilution

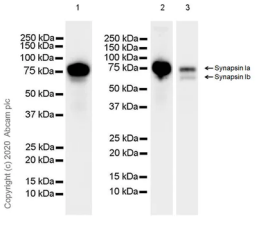
All lanes:
Human brain tissue lysate at 20 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/1000 dilution

Predicted band size: 74 kDa

Observed band size: 70 kDa, 75 kDa



Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 15 seconds.

All lanes:

Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Rat brain tissue lysate at 20 µg

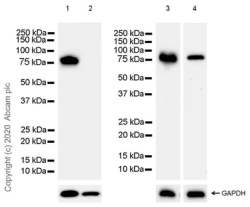
Lane 3:
Rat spinal cord tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 74 kDa

Observed band size: 70 kDa, 75 kDa



Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Negative control: Mouse lung (PMID: 9539796).

Exposure times: Lanes 1-3: 5.5 seconds; Lane 4: 3 minutes.

All lanes:
Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse lung tissue lysate at 20 µg

Lane 3:
Rat brain tissue lysate at 20 µg

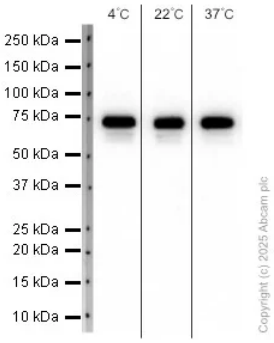
Lane 4:
Rat spinal cord tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 74 kDa

Observed band size: 75 kDa



Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349)

Synapsin I Western blot staining of Mouse brain lysate using rabbit Anti-Synapsin I antibody

This blot was produced using 4-20% SDS-PAGE containing 15 µg of mouse brain lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab254349 (1/2000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/50,000 dilution for 1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab254349 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.

All lanes:
Western blot - Anti-Synapsin I antibody [EPR23531-50] - Synaptic Marker (ab254349) at 1/2000 dilution

All lanes:
Mouse brain lysate at 15 µg with NDFM/TBST

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Exposure time: 7s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.