


Product datasheet

Anti-Neurogranin antibody [EPR21152] - BSA and Azide free ab230154

Recombinant RabMAb

8 Images

Overview

Product name	Anti-Neurogranin antibody [EPR21152] - BSA and Azide free
Description	Rabbit monoclonal [EPR21152] to Neurogranin - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IHC-Fr, IP, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Common marmoset 
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Rat cerebrum tissue.
General notes	<p>ab230154 is the carrier-free version of ab217672.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21152
Isotype	IgG

Applications

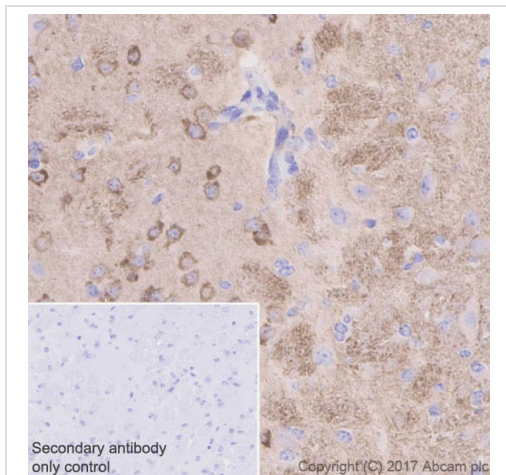
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab230154 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 15 kDa (predicted molecular weight: 8 kDa).
IHC-Fr		Use at an assay dependent concentration. Perform heat mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Acts as a "third messenger" substrate of protein kinase C-mediated molecular cascades during synaptic development and remodeling. Binds to calmodulin in the absence of calcium.
Tissue specificity	In the cerebral cortex, found in the cell bodies of neurons in layers II-VI, and in apical and basal dendrites of pyramidal neurons. Is not found in the dendrites in patients with Alzheimer disease.
Sequence similarities	Belongs to the neurogranin family. Contains 1 collagen-like domain. Contains 1 IQ domain.



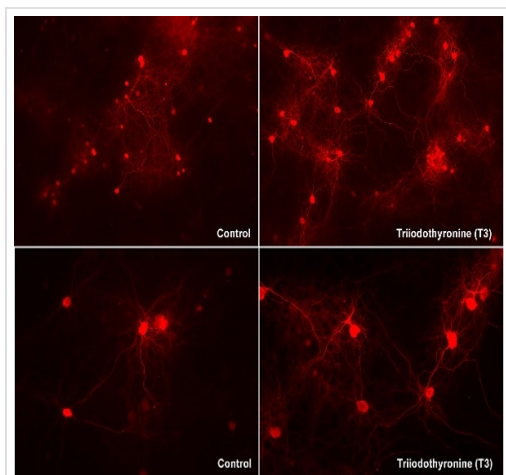
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling Neurogranin with **ab217672** at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Mainly cytoplasmic staining on mouse cerebrum (PMID: 26076492) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



Immunocytochemistry/ Immunofluorescence - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Image courtesy of Ms. Babben Tinner (QBM Cell Science).

Immunocytochemistry/ Immunofluorescence analysis of primary rat cortical neurons labeling Neurogranin with **ab217672** at 1/1500.

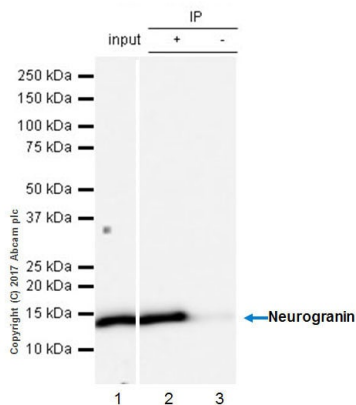
The cells were fixed with 4% paraformaldehyde containing 0.2% picric acid in 0.1M phosphate buffer, pH 6.9 for 20 minutes.

Permeabilization was with 0.3% Triton-X 100 in PBS (PBSTx). **ab150068** at 1/200 was used as the secondary antibody

The rat cortical neurons were cultured for 29 days *in vitro*. They were either left untreated (Control) or treated beginning on the 10th day with 60ng/mL triiodothyronine (T3), to enhance neurogranin expression.

The cells were visualized with an inverted microscope at 10X magnification (upper panels) or 20X magnification (lower panels).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



Immunoprecipitation - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Neurogranin was immunoprecipitated from 0.35 mg mouse cerebral cortex lysate with **ab217672** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab217672** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5,000 dilution.

Lane 1: Mouse cerebral cortex lysate 10 µg (Input).

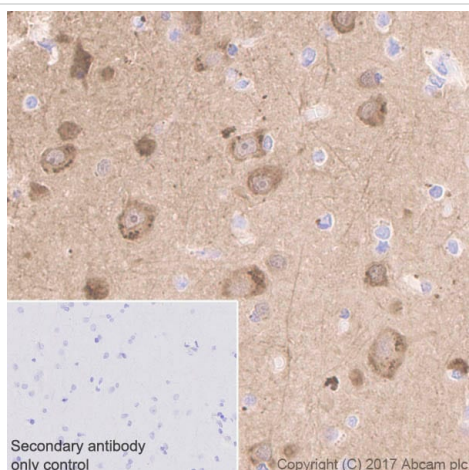
Lane 2: **ab217672** IP in mouse cerebral cortex lysate (+).

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab217672** in mouse cerebral cortex lysate (-).

Blocking and dilution buffer and concentration: 5% NFD/MTBST.

Exposure time: 15 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



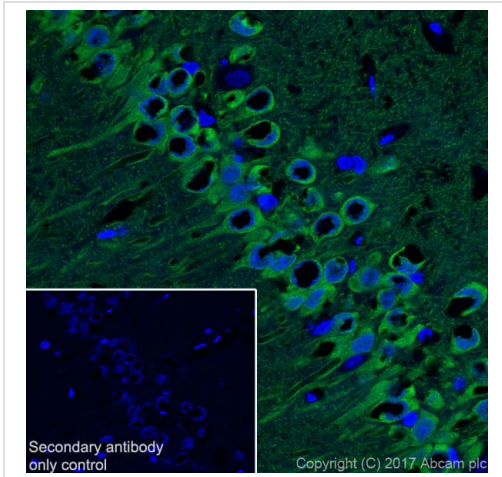
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling Neurogranin with **ab217672** at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Mainly cytoplasmic but also weak nuclear staining on human cerebrum (PMID: 26076492; PMID: 21516261) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



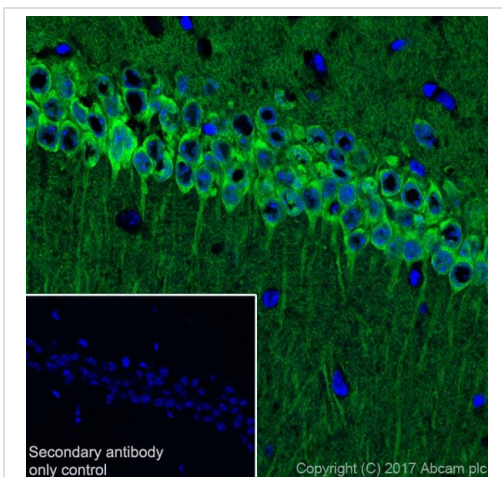
Immunohistochemistry (Frozen sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat hippocampus CA1 tissue labeling Neurogranin with **ab217672** at 1/3000 dilution (green), followed by **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary at a 1/1000 dilution. Positive staining in the stratum pyramidal neurons of hippocampus CA1 on rat brain (PMID: 15389631; 21516261) is observed. Counter stained with DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor[®]488 Goat anti-Rabbit used at a 1/1000 dilution.

Perform heat-mediated antigen retrieval by using sodium citrate buffer (10 mM citrate pH 6.0 + 0.05% Tween-20)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



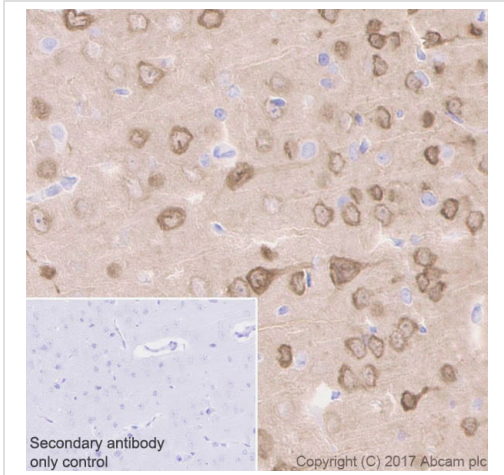
Immunohistochemistry (Frozen sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse hippocampus CA1 tissue labeling Neurogranin with **ab217672** at 1/3000 dilution (green), followed by **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary at a 1/1000 dilution. Positive staining in the stratum pyramidal neurons of hippocampus CA1 on mouse brain (PMID: 15389631; 21516261) is observed. Counter stained with DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor[®]488 Goat anti-Rabbit used at a 1/1000 dilution.

Perform heat-mediated antigen retrieval by using sodium citrate buffer (10 mM citrate pH 6.0 + 0.05% Tween-20)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).



Immunohistochemical analysis of paraffin-embedded rat cerebrum tissue labeling Neurogranin with **ab217672** at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Mainly cytoplasmic staining on rat cerebrum (PMID: 26076492) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab217672**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet

- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors