abcam

Product datasheet

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

Recombinant RabMAb

7 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
Immunogen	Recombinant fragment within Human Neurogranin aa 1 to the C-terminus. The exact sequence is proprietary. Database link: Q92686
Positive control	IHC-P: Rat cerebrum tissue.
General notes	Ab230154 is the carrier-free version of ab217672. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab230154 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* 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 production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21152
Isotype	IgG

Applications

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

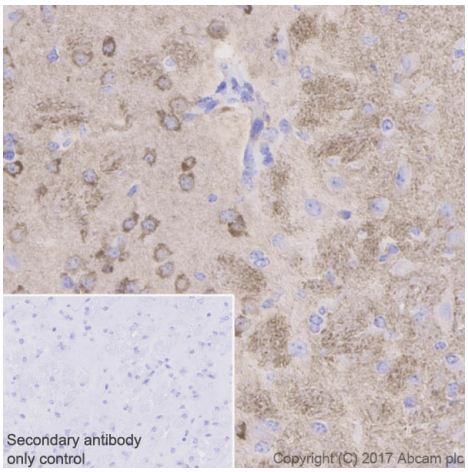
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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.

Images



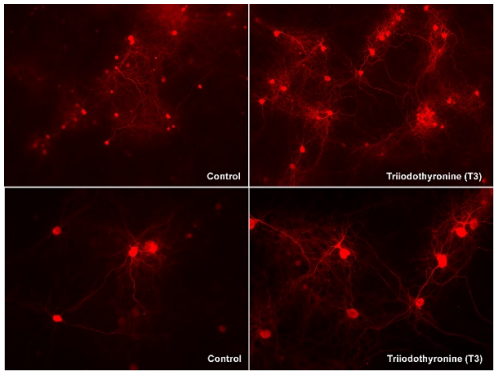
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

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)

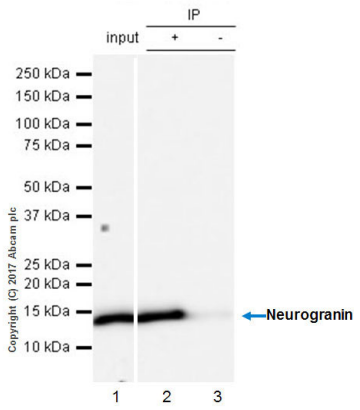
Image courtesy of Ms. Babben Tinner (QBM Cell Science).

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 10^{th} 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).



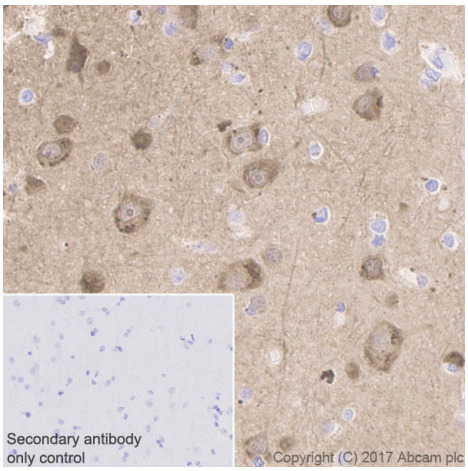
Immunoprecipitation - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

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% NFDM/TBST.
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).

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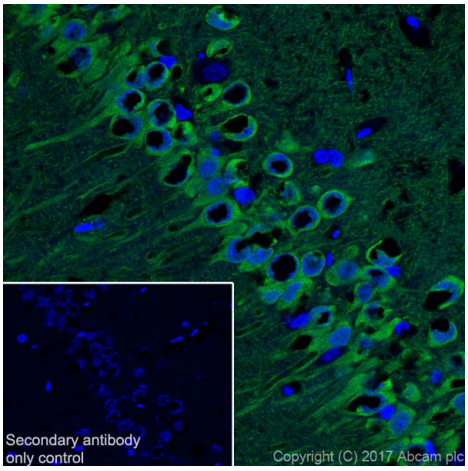


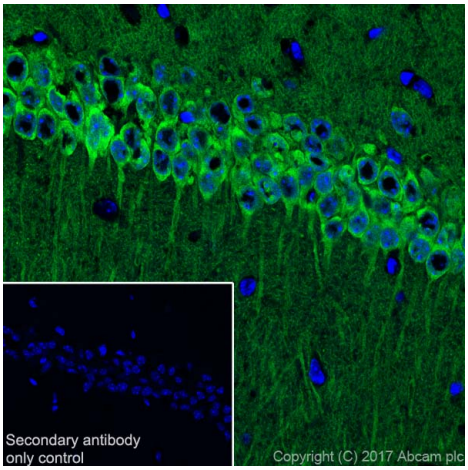
Immunohistochemistry (Frozen sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

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).



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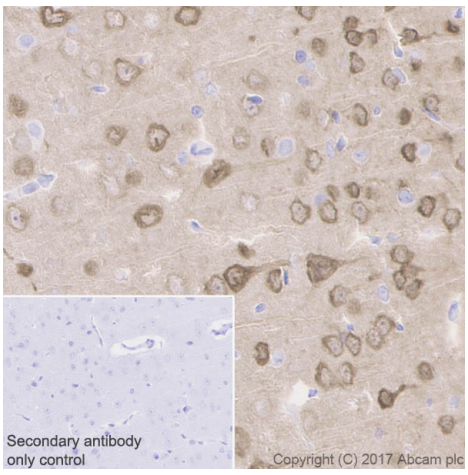

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neurogranin antibody [EPR21152] - BSA and Azide free (ab230154)

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