abcam

ab245230

Anti-BRN3A antibody [EPR23257-285]

Anti-BRN3A antibody [EPR23257-285] (ab245230) is a rabbit monoclonal antibody detecting BRN3A in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, IHC-Fr**. Suitable for **Human, Mouse, Rat,**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | 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	EPR23257-285
Purification technique	Affinity purification Protein A
Concentration	0.433 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Expected

Species	Rat, 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).

Expected

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

Not recommended

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

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	1/400
Notes	-

Expected

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

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information POU4F1

Function

Multifunctional transcription factor with different regions mediating its different effects. Acts by binding (via its C-terminal domain) to sequences related to the consensus octamer motif 5'-ATGCAAAT-3' in the regulatory regions of its target genes. Regulates the expression of specific genes involved in differentiation and survival within a subset of neuronal lineages. It has been shown that activation of some of these genes requires its N-terminal domain, maybe through a neuronal-specific cofactor. Activates BCL2 expression and protects neuronal cells from apoptosis (via the N-terminal domain). Induces neuronal process outgrowth and the coordinate expression of genes encoding synaptic proteins. Exerts its major developmental effects in somatosensory neurons and in brainstem nuclei involved in motor control. Stimulates the binding affinity of the nuclear estrogene receptor ESR1 to DNA estrogen response element (ERE), and hence modulates ESR1-induced transcriptional activity. May positively regulate POU4F2 and POU4F3. Regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord. Plays a role in TNFSF11-mediated terminal osteoclast differentiation. Negatively regulates its own expression interacting directly with a highly conserved autoregulatory domain surrounding the transcription initiation site. Isoform 2. Able to act as transcription factor, cannot regulate the expression of the same subset of genes than isoform 1. Does not have antiapoptotic effect on neuronal cells.

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-BRN3A antibody [EPR23257-285] (ab245230) 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) in Human, Mouse, Rat, samples.

What is the molecular weight of BRN3A?
Anti-BRN3A [EPR23257-285] (ab245230) specifically detects a band for BRN3A (UniProt: P17208) at a molecular weight of 43kDa.

Trusted by the scientific community
Anti-BRN3A [EPR23257-285] (ab245230) 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 [EPR23257-285] also available for your convenience: ab245230, Carrier free - ab273099, Alexa Fluor® 647 - ab300744

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.

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.

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

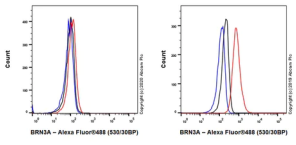
We do not recommend this combination. It is not covered by our product promise.

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.

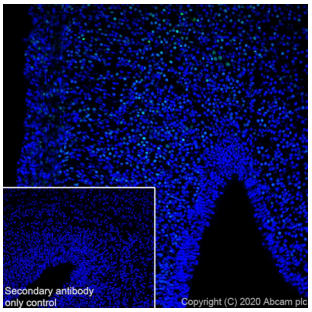
9 product images



Flow Cytometry (Intracellular) - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Flow Cytometry (Intracellular) staining using rabbit Anti-BRN3A antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol-permeabilized Daudi (Human Burkitt's lymphoma lymphoblast (Left) / MOLT-4 (Human lymphoblastic leukemia T lymphoblast (Right) cells labelling BRN3A with ab245230 at 1/400 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Negative control: Daudi (PMID: 20460523).

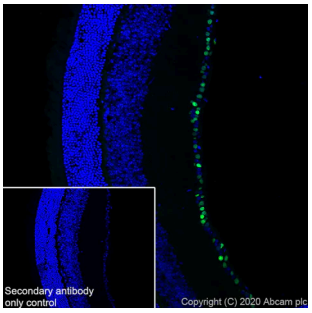


Immunohistochemistry (Frozen sections) - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Immunohistochemistry (Frozen sections) staining using rabbit Anti-BRN3A antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse E14.5 embryo tissue labeling BRN3A with ab245230 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Nuclear staining on mouse E14.5 embryonic brain 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 dilution.

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

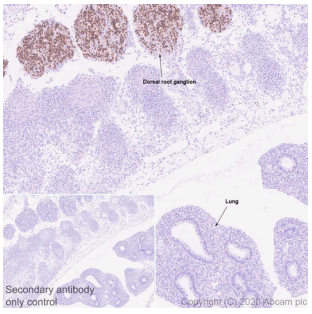


Immunohistochemistry (Frozen sections) - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Immunohistochemistry (Frozen sections) staining using rabbit Anti-BRN3A antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse retina tissue labeling BRN3A with ab245230 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Nuclear staining on ganglion cell layer of 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 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-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BRN3A antibody

Immunohistochemical analysis of paraffin-embedded rat E14.5 tissue labeling BRN3A with ab245230 at 1/2000 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on dorsal root ganglia of rat E14.5 (PMID: 8341591). The section was incubated with ab245230 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 ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

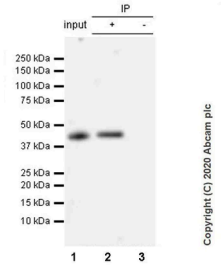


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BRN3A antibody

Immunohistochemical analysis of paraffin-embedded mouse E14.5 tissue labeling BRN3A with ab245230 at 1/2000 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on cochleovestibular ganglion and colliculus of mouse E14.5 (PMID: 24709358). The section was incubated with ab245230 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 ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A was immunoprecipitated from 0.35 mg mouse E14.5 brain tissue lysate with ab245230 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab245230 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Mouse E14.5 brain tissue lysate 10µg.

Lane 2: ab245230 IP in Mouse E14.5 brain tissue lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab245230 in mouse E14.5 brain tissue lysate.

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

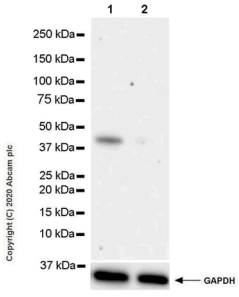
Exposure time: 3 minutes.

This blot was developed using a higher sensitivity ECL substrate.

All lanes:
Immunoprecipitation - Anti-BRN3A antibody [EPR23257-285] (ab245230)

Predicted band size: 43 kDa

Observed band size: 42 kDa



Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Western blot staining using rabbit Anti-BRN3A antibody

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

Negative control: Daudi (PMID: 20460523).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230) at 1/1000 dilution

Lane 1:
MOLT-4 (human lymphoblastic leukemia T lymphoblast), whole cell lysate at 20 µg

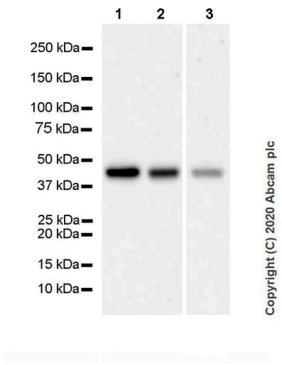
Lane 2:
Daudi (human Burkitts lymphoma lymphoblast), whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 43 kDa

Observed band size: 42 kDa



Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230)

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

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230) at 1/1000 dilution

Lane 1:
Mouse E14.5 brain tissue lysate at 20 µg

Lane 2:
Mouse E18 brain tissue lysate at 20 µg

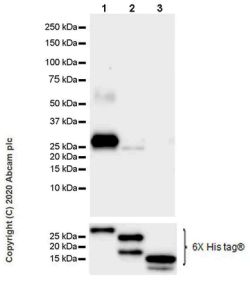
Lane 3:
Rat E18 brain tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 43 kDa

Observed band size: 42 kDa



Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230)

BRN3A Western blot staining using rabbit Anti-BRN3A antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
ab245230 has a low affinity with mouse POU4F2 recombinant protein.

Exposure time: 15 seconds.

All lanes:
Western blot - Anti-BRN3A antibody [EPR23257-285] (ab245230) at 1/1000 dilution

Lane 1:
His-tagged Mouse POU4F1 recombinant protein (aa2-100-GGGS linked aa2-100), 10ng

Lane 2:

His-tagged Mouse POU4F2 recombinant protein (aa91-261), 20ng

Lane 3:
His-tagged Mouse POU4F3 recombinant protein (aa2-100), 20ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 43 kDa

Observed band size: 26 kDa

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