abcam

ab197023

Anti-HNRNPA0 antibody [EP16085]

Recombinant | RabMAb | KO Validated

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	EP16085
Purification technique	Affinity purification Protein A
Concentration	1.476 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/150
Notes	-

Expected

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

IHC-P

Tested

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.

Species	Human
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 HNRNPA0

Function	mRNA-binding component of ribonucleosomes. Specifically binds AU-rich element (ARE)-containing mRNAs. Involved in post-transcriptional regulation of cytokines mRNAs.

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

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.

Supplementary info

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

Activity summary	The heterogeneous nuclear ribonucleoprotein A0 (HNRNPA0) is a protein involved in RNA binding and regulation of RNA metabolism. Commonly referred to as HNRNPA0 it has a molecular mass close to 34 kDa. This protein is expressed in a variety of tissues including brain liver and spleen suggesting its widespread functional relevance. HNRNPA0 plays a role in the post-transcriptional regulation of gene expression by influencing mRNA stability and splicing.
Biological function summary	HNRNPA0 modulates RNA processing and is actively involved in mRNA decay and stabilization processes. It forms complexes with other hnRNP proteins and interacts with mRNA substrates to regulate their fate within the cell. This protein contributes to gene expression regulation under stress conditions by altering the stability of specific mRNAs. Such regulation is important for maintaining proper cellular responses to external stress factors.
Pathways	HNRNPA0 is involved in the p38 MAPK signaling pathway where it influences the stability of mRNAs encoding inflammatory mediators. It also plays a part in the apoptotic pathway where it interacts with proteins such as TRAF2 and apoptosis as death domain-like protein (ADRP). Through these pathways HNRNPA0 contributes to cellular stress responses inflammation and programmed cell death linking it to essential cellular processes.
Associated diseases and disorders	HNRNPA0 has been implicated in neurodegenerative diseases like amyotrophic lateral sclerosis (ALS) where protein aggregates may form due to dysregulation of HNRNPA0 activity. It is also associated with certain types of cancer such as leukemia where altered expression levels may impact mRNA stability and cell proliferation. Through these disease contexts HNRNPA0 interacts with proteins like TDP-43 in ALS and has connections to proto-oncogenes in cancer highlighting its potential role as a therapeutic target.

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

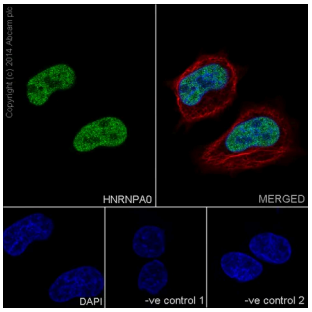
We do not recommend this combination. It is not covered by our product promise.

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.

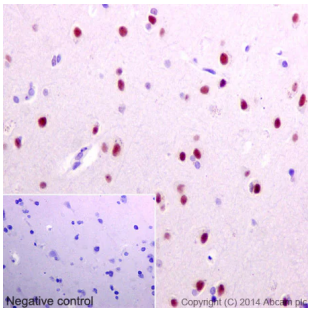
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-HNRNPA0 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling HNRNPA0 with ab197023 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Nuclear staining on HeLa cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows;
-ve control 1: ab197023 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.

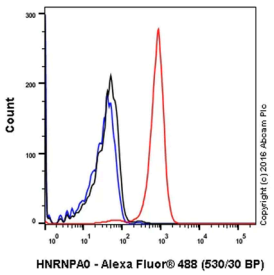


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HNRNPA0 antibody

Immunohistochemical analysis of paraffin-embedded Human cerebral cortex labeling HNRNPA0 with ab197023 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on Human cerebral cortex tissue is observed. Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

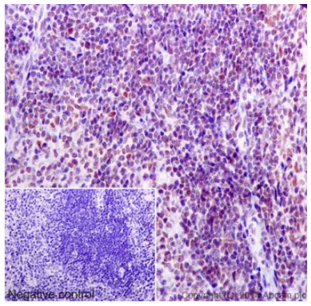
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Flow Cytometry (Intracellular) staining using rabbit Anti-HNRNPA0 antibody

Intracellular Flow Cytometry analysis of HeLa cells labelling HNRNPA0 (red) with purified ab197023 at dilution of 1/150. The secondary antibody used was Alexa Fluorr® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.

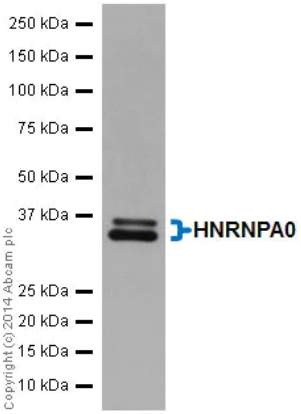


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HNRNPA0 antibody

Immunohistochemical analysis of paraffin-embedded Mouse spleen labeling HNRNPA0 with ab197023 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on Mouse spleen tissue is observed. Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Western blot staining of 293 (Human embryonic kidney) lysate using rabbit Anti-HNRNPA0 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023) at 1/1000 dilution

All lanes:
293 (Human embryonic kidney) lysate at 20 µg

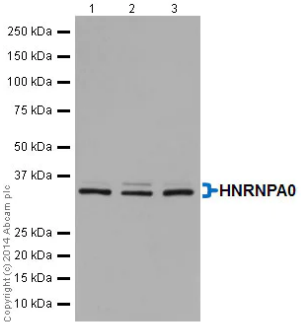
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 31 kDa

Observed band size: 32 kDa, 34 kDa

Exposure time: 3min



Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Western blot staining using rabbit Anti-HNRNPA0 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023) at 1/10000 dilution

Lane 1:
HeLa (Human epithelial cells from cervix adenocarcinoma) lysate at 20 µg

Lane 2:
Jurkat (Human T cell leukemia cells from peripheral blood) lysate at 20 µg

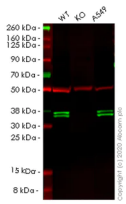
Lane 3:
A549 (Human lung carcinoma) lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 31 kDa

Observed band size: 32 kDa, 34 kDa



Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023)

HNRNPA0 Western blot staining using rabbit Anti-HNRNPA0 antibody

Lanes 1-3: Merged signal (red and green). Green - ab197023 observed at 32,34 kDa. Red - loading control ab8245 observed at 36 kDa.
ab197023 Anti-HNRNPA0 antibody [EP16085] was shown to specifically react with HNRNPA0 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab266314 (knockout cell lysate ab257989) was used. Wild-type and HNRNPA0 knockout samples were subjected to SDS-

PAGE. ab197023 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.
All lanes:
Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023) at 1/1000 dilution

Lane 1:
Wild-type HEK293T cell lysate at 20 µg

Lane 2:
HNRNPA0 knockout HEK293T cell lysate at 20 µg

Lane 2:
Western blot - Human HNRNPA0 knockout HEK-293T cell line (ab266314)

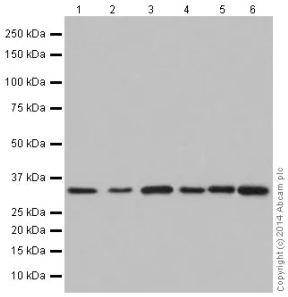
Lane 3:
A549 cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 31 kDa

Observed band size: 32 kDa, 34 kDa



Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-HNRNPA0 antibody [EP16085] (ab197023) at 1/1000 dilution

Lane 1:
Mouse brain lysate at 10 µg

Lane 2:
Rat brain lysate at 10 µg

Lane 3:
C6 (Rat glial tumor cells) lysate at 10 µg

Lane 4:
RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) lysate at 10 µg

Lane 5:
PC-12 (Rat adrenal gland pheochromocytoma) lysate at 10 µg

Lane 6:
NIH/3T3 (Mouse embyro fibroblast cells) lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 31 kDa

Observed band size: 32 kDa

Exposure time: 3min

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