abcam

ab242410

Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR17397
Purification technique	Affinity purification Protein A
Concentration	0.969 - 1.023 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information ELAVL1

Function

RNA-binding protein that binds to the 3'-UTR region of mRNAs and increases their stability (PubMed:14517288, PubMed:18285462, PubMed:31358969). Involved in embryonic stem cell (ESC) differentiation: preferentially binds mRNAs that are not methylated by N6-methyladenosine (m6A), stabilizing them, promoting ESC differentiation (By similarity). Has also been shown to be capable of binding to m6A-containing mRNAs and contributes to MYC stability by binding to m6A-containing MYC mRNAs (PubMed:32245947). Binds to poly-U elements and AU-rich elements (AREs) in the 3'-UTR of target mRNAs (PubMed:14731398, PubMed:17632515, PubMed:18285462, PubMed:23519412, PubMed:8626503). Binds avidly to the AU-rich element in FOS and IL3/interleukin-3 mRNAs. In the case of the FOS AU-rich element, binds to a core element of 27 nucleotides that contain AUUUA, AUUUUA, and AUUUUUA motifs. Binds preferentially to the 5'-UUUU[AG]UUU-3' motif in vitro (PubMed:8626503). With ZNF385A, binds the 3'-UTR of p53/TP53 mRNA to control their nuclear export induced by CDKN2A. Hence, may regulate p53/TP53 expression and mediate in part the CDKN2A anti-proliferative activity. May also bind with ZNF385A the CCNB1 mRNA (By similarity). Increases the stability of the leptin mRNA harboring an AU-rich element (ARE) in its 3' UTR (PubMed:29180010).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab242410 is the carrier-free version of ab200342.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

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.

Compatibility

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.

Supplementary info

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

Activity summary	HuR also known as ELAVL1 is a protein that binds RNA in cells. It weighs about 36 kDa and is found in the nucleus and cytoplasm. Its name HuR comes from its similarity to human antigen R. Researchers often call it the HuR protein or ELAVL1 protein. This protein helps stabilize certain mRNA molecules by binding to AU-rich elements (AREs) in their 3' untranslated regions. Its binding affects mRNA decay rates and therefore influences protein synthesis.
Biological function summary	HuR influences cell growth differentiation and stress responses. It does not work alone; it often forms part of larger ribonucleoprotein complexes. By stabilizing mRNAs HuR ensures the continuous production of proteins necessary for cell survival and adaptation to stressors. This regulatory role highlights its involvement

	in many cellular processes making it a focus for study in relation to cellular homeostasis.
Pathways	HuR is part of the mRNA surveillance pathway and the response to cellular stress. HuR modulates gene expression by interacting with proteins involved in transcription and translation regulation. It frequently partners with proteins like TTP (tristetraprolin) that also bind to AREs affecting mRNA stability and translation processes. Such interactions extend HuR's influence across pathways related to gene expression regulation and response to stress.
Associated diseases and disorders	Researchers associate HuR with cancer and neurodegenerative diseases. In cancer HuR stabilizes mRNAs of many oncogenes aiding tumor growth and progression. It may interact with proteins like p53 affecting tumor suppressor pathways. For neurodegenerative diseases HuR's role in mRNA stability can influence neural health connected to proteins like TDP-43 in conditions such as Alzheimer's and ALS. Understanding HuR's function offers insights into potential therapeutic targets for these diseases.

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

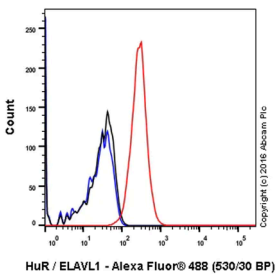
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



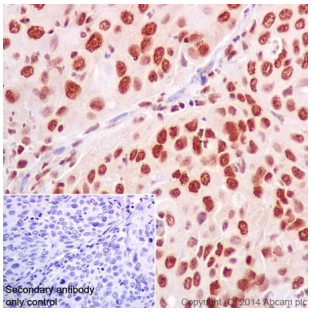
Flow Cytometry (Intracellular) - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Flow Cytometry (Intracellular) staining using rabbit Anti-HuR / ELAVL1 antibody

ab200342 staining HuR / ELAVL1 in Jurkat (human acute T cell leukemia) cells by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/23000. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab200342)



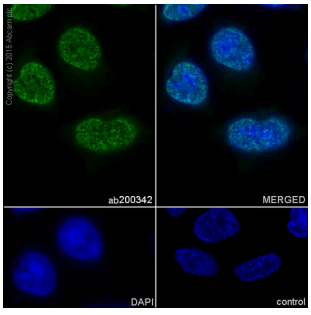
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HuR / ELAVL1 antibody

Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling HuR / ELAVL1 with ab200342 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weakly cytoplasm staining on Human cervix carcinoma tissue is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab200342)

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

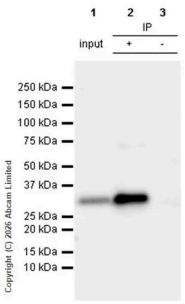


Immunocytochemistry/ Immunofluorescence - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-HuR / ELAVL1 antibody

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling HuR / ELAVL1 with ab200342 at 1/500. Cells were fixed with 100% methanol. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.
Control: PBS only.
Nuclear counter stain: DAPI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab200342)



Immunoprecipitation - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

This data was developed using ab200342, the same antibody clone in a different buffer formulation.

HuR / ELAVL1 was immunoprecipitated from 293T (human embryonic kidney epithelial cell) whole cell lysate with ab200342 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab200342 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used as secondary antibody at 1/5000 dilution.

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

All lanes:
Immunoprecipitation - Anti-HuR / ELAVL1 antibody [EPR17397] (ab200342) at 1/30 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) whole cell lysate at 10 µg

Lane 2:
293T (human embryonic kidney epithelial cell) whole cell lysate

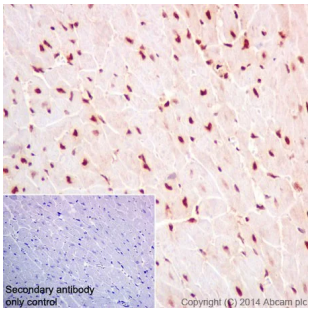
Lane 3:
Rabbit monoclonal IgG (ab172730) instead of ab200342 in 293T whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Observed band size: 36 kDa

Exposure time: 8s



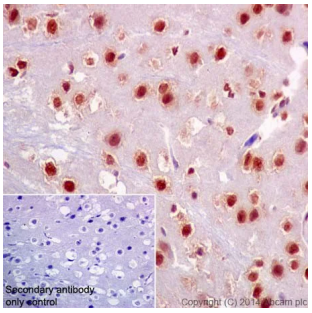
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HuR / ELAVL1 antibody

Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labeling HuR / ELAVL1 with ab200342 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weakly cytoplasm staining on Mouse cardiac muscle tissue is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab200342)

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



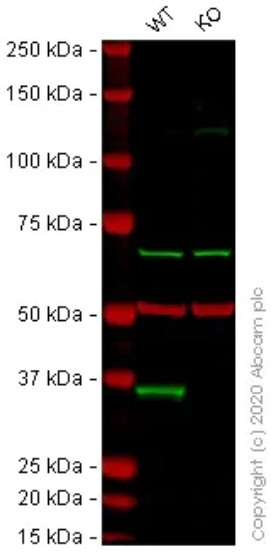
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HuR / ELAVL1 antibody

Immunohistochemical analysis of paraffin-embedded Rat cerebral cortex tissue labeling HuR / ELAVL1 with ab200342 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weakly cytoplasm staining on rat cerebral cortex tissue tissue is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab200342)

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



Western blot - Anti-HuR / ELAVL1 antibody [EPR17397] - BSA and Azide free (ab242410)

HuR / ELAVL1 Western blot staining using rabbit Anti-HuR / ELAVL1 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab200342).
Lanes 1 - 2: Merged signal (red and green). Green - ab200342 observed at 36 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A] observed at 55kDa.

ab200342 was shown to react with ELAVL1 in wild-type SW480 cells in western blot with loss of signal observed in ELAVL1 knockout sample. Wild-type and ELAVL1 knockout SW480 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab200342 and ab7291 (Mouse anti-Alpha Tubulin [DM1A] overnight at 4°C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-HuR / ELAVL1 antibody [EPR17397] (ab200342) at 1/5000 dilution

Lane 1:
Wild-type SW480 (Human colorectal adenocarcinoma cell line) whole cell lysate at 40 µg

Lane 2:
ELAVL1 knockout SW480 (Human colorectal adenocarcinoma cell line) whole cell lysate at 40 µg

Lane 2:
Western blot - Human ELAVL1 knockout SW480 cell line (ab270485)

Performed under reducing conditions.

Predicted band size: 36 kDa

Observed band size: 36 kDa

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