


Product datasheet

Anti-hnRNP A1 antibody ab4791

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Overview

Product name	Anti-hnRNP A1 antibody
Description	Rabbit polyclonal to hnRNP A1
Host species	Rabbit
Specificity	This antibody recognises hnRNPA1 (39kDa) in Western blots.
Tested applications	Suitable for: IHC-P, IP, ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Macaque monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Recombinant Human hnRNP A1 (isoform A1-A) protein (ab91691) can be used as a positive control in WB. This antibody gave a positive signal in HeLa whole cell lysate and Human normal skin tissue section. ICC/IF positive control: U2OS cells
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

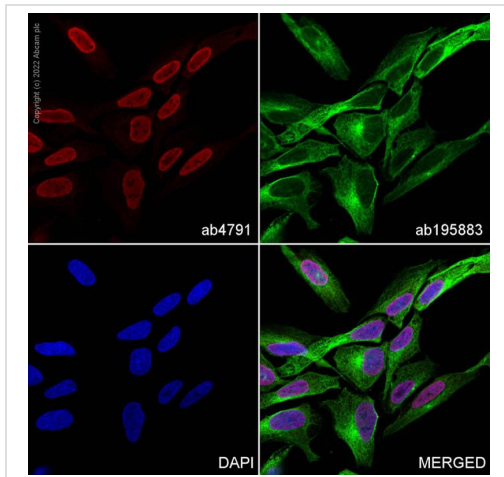
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4791 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB	★ ★ ★ ★ ★ (1)	1/500 - 1/1000. Detects a band of approximately 39 kDa (predicted molecular weight: 41 kDa).

Target

Function	Involved in the packaging of pre-mRNA into hnRNP particles, transport of poly(A) mRNA from the nucleus to the cytoplasm and may modulate splice site selection. May play a role in HCV RNA replication.
Sequence similarities	Contains 2 RRM (RNA recognition motif) domains.
Post-translational modifications	Arg-194, Arg-206 and Arg-225 are dimethylated, probably to asymmetric dimethylarginine. Sumoylated.
Cellular localization	Nucleus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Shuttles continuously between the nucleus and the cytoplasm along with mRNA. Component of ribonucleosomes. In the course of viral infection, colocalizes with HCV NS5B at speckles in the cytoplasm in a HCV-replication dependent manner.

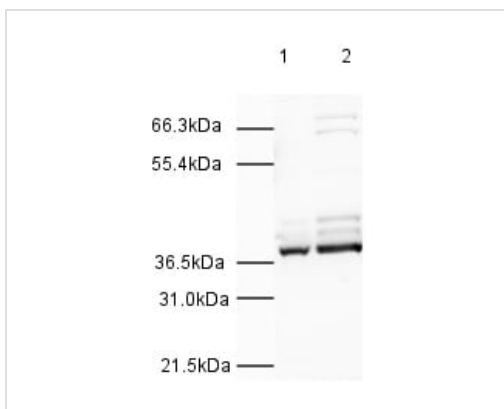
Images



Immunocytochemistry/ Immunofluorescence - Anti-hnRNP A1 antibody (ab4791)

ab4791 staining hnRNP A1 in U2OS cells. The cells were fixed with 4% PFA (10 mins), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab4791 at 5µg/ml and **ab195883**, Rat monoclonal to alpha Tubulin (Alexa Fluor® 488), at 2µg/ml (shown in green). The secondary antibody (shown in red) was **ab150083**, Alexa Fluor® 647 Goat anti-Rabbit IgG (H+L) used at a 1/1000 dilution for 1h at room temperature. Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Western blot - Anti-hnRNP A1 antibody (ab4791)

All lanes : Anti-hnRNP A1 antibody (ab4791) at 1/500 dilution

Lane 1 : HeLa Whole Cell Extract

Lane 2 : HeLa Nuclear Extract

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab6721**) at 1/2000 dilution

Predicted band size: 41 kDa

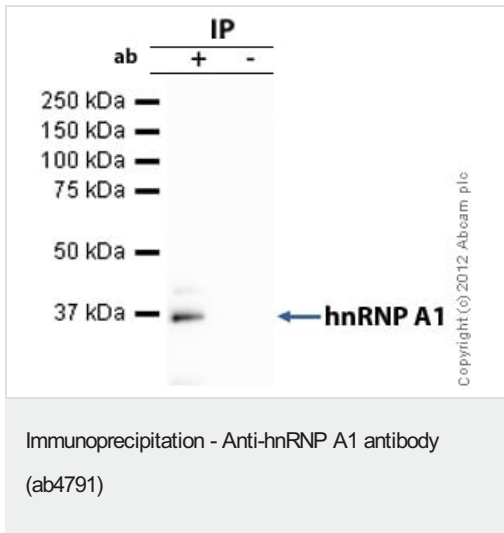
Observed band size: 39 kDa

Rabbit polyclonal to hnRNPA1 (ab4791) at 1/500.

Lane 1: HeLa Whole Cell Extract

Lane 2: HeLa Nuclear Extract

Secondary ab: Goat anti-rabbit IgG HRP conjugate **ab6721** (1/2000)



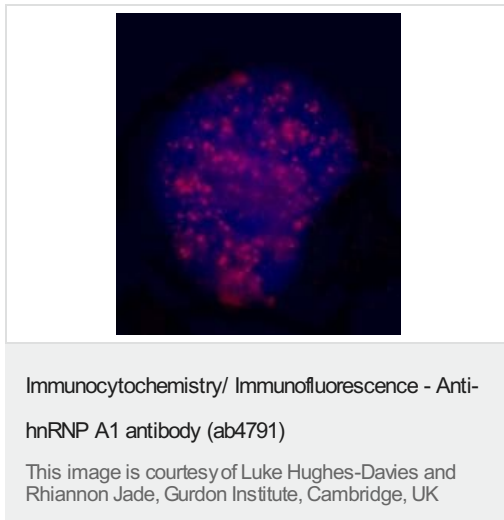
hnRNP A1 was immunoprecipitated using 0.5mg Hela whole cell extract, 5µg of Rabbit polyclonal to hnRNP A1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Hela whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab4791.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) ([ab99697](#)).

Band: 36kDa: hnRNP A1.



Immunofluorescent imaging of human cells (U2OS) with ab4791 reveals the expected ribonucleoprotein particular staining in the nucleus.

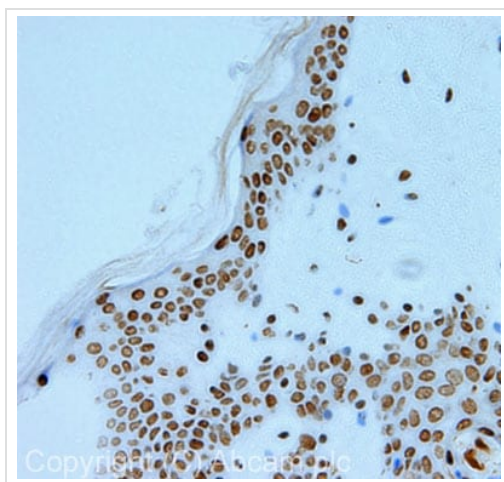
IF was performed with a standard paraformaldehyde technique (fixed in

PBS buffered PFH 4% for 5 minutes, permeabilised with 0.5% triton-PBS

for 5 minutes, blocked with 5% milk / 0.2% tween for one

hour. Primary antibody used at 1/200 in 5% milk / 0.2% TWEEN for one hour, secondary antibody for 30 minutes. All blocking and

incubation steps carried out at 37 degrees. Nuclei counterstained with Hoechst stain (blue).



IHC image of hnRNP A1 staining in human skin FFPE section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab4791, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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