abcam

Product datasheet

Anti-RNPS1 antibody ab79233

⭐☆☆☆☆ **1 Abreviews**   **1 References**   3 Images

Overview

Product name	Anti-RNPS1 antibody
Description	Rabbit polyclonal to RNPS1
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Human
	Predicted to work with: Mouse, Rat, Cow, Orangutan ⚠
Immunogen	Synthetic peptide corresponding to Human RNPS1 aa 150-250 conjugated to keyhole limpet haemocyanin. (Peptide available as **ab88206**)
Positive control	This antibody gave a positive signal in the following whole cell lysates: HeLa; Jurkat; HepG2; A431; U20S; JEG3; MCF7.
General notes	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. 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

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 ab79233 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
ICC/IF		Use a concentration of 5 µg/ml.
WB	★☆☆☆☆ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 50 kDa (predicted molecular weight: 34 kDa).

Target

Function Component of a splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junction on mRNAs. The EJC is a dynamic structure consisting of a few core proteins and several more peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. Part of pre- and post-splicing multiprotein mRNP complexes. Enhances the formation of the ATP-dependent A complex of the spliceosome. Involved in both constitutive splicing and, in association with SRP54 and TRA2B/SFRS10, in distinctive modulation of alternative splicing in a substrate-dependent manner. Participates in mRNA 3'-end cleavage. Involved in UPF2-dependent nonsense-mediated decay (NMD) of mRNAs containing premature stop codons. Also mediates increase of mRNA abundance and translational efficiency. Binds spliced mRNA 20-25 nt upstream of exon-exon junctions.

Tissue specificity Ubiquitous.

Sequence similarities Belongs to the splicing factor SR family.
Contains 1 RRM (RNA recognition motif) domain.

Post-translational modifications Phosphorylated on one or more of the four Ser/Thr residues (Ser-43, Thr-49, Ser-52 or Ser-53). Ser-53 phosphorylation site is important for splicing and translation stimulation activity in vitro.

Cellular localization Nucleus. Nucleus speckle. Cytoplasm. Nucleocytoplasmic shuttling protein. Colocalizes with the core EJC, ALYREF/THOC4, NXF1 and UAP56 in the nucleus and nuclear speckles.

Images

Western blot - Anti-RNPS1 antibody (ab79233)

All lanes : Anti-RNPS1 antibody (ab79233) at 1 µg/ml

Lane 1 : HeLa whole cell lysate

Lane 2 : HepG2 whole cell lysate

Lane 3 : JEG-3 whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution
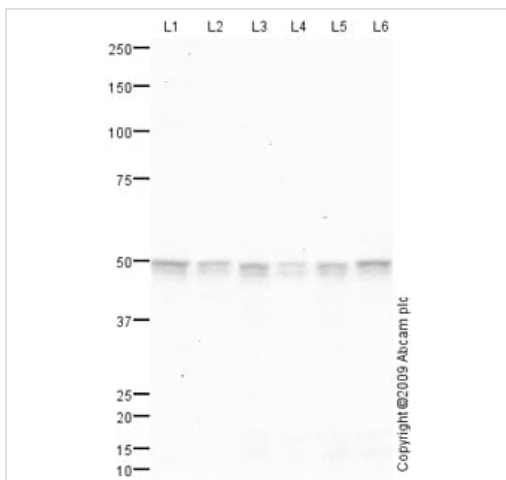
Predicted band size: 34 kDa

Additional bands at: 50 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 20 minutes

Blocking buffer: 3% Milk

Gel type: MOPS

Western blot - Anti-RNPS1 antibody (ab79233)

All lanes : Anti-RNPS1 antibody (ab79233) at 1 µg/ml

Lane 1 : : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lane 3 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lane 4 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 5 : U2OS (Human osteosarcoma cell line) Whole Cell Lysate

Lane 6 : JEG-3 (Human placental choriocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

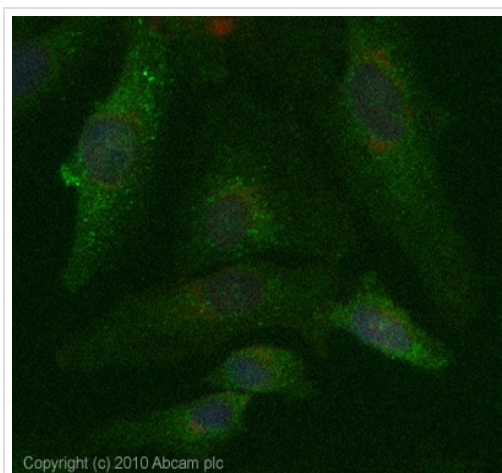Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 34 kDa
Observed band size: 50 kDa
Additional bands at: 47 kDa (possible isoform)

Exposure time: 5 minutes

RNA-binding protein with serine-rich domain 1(RNPS1) contains a significant number of potential phosphorylation sites (SwissProt data) which may explain it running at a higher molecular weight than predicted. RNPS1 has 3 isoforms of differing molecular weight and the 50 kDa band is thought to represent isoform 1 (34 kDa) in a heavily phosphorylated form. The band of a slightly lower intensity seen at 47 kDa, is thought to represent isoform 2 (31 kDA) also heavily phosphorylated (SwissProt). Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.

ICC/IF image of ab79233 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal Goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab79233, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 Goat anti-Rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunocytochemistry/ Immunofluorescence - Anti-RNPS1 antibody (ab79233)

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