### Overview

**Product name**
Anti-hnRNP A1 antibody [9H10] ab5832

**Description**
Mouse monoclonal [9H10] to hnRNP A1

**Host species**
Mouse

**Tested applications**
Suitable for: Flow Cyt, IHC-P, ELISA, WB, IP, ICC/IF

**Species reactivity**
Reacts with: Mouse, Human

**Immunogen**
Full length hnRNPA1 native protein (partially purified) from HeLa cells (Human).

**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

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
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<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.1% Sodium azide Constituent: PBS</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Purification notes</strong></td>
<td>Purified from tissue culture supernatant.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>9H10</td>
</tr>
<tr>
<td><strong>Myeloma</strong></td>
<td>Sp2/0</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG2b</td>
</tr>
</tbody>
</table>

### Applications
The Abpromise guarantee covers the use of ab5832 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use 1 µg for 10^6 cells. <strong>ab170192</strong> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★★ (3)</td>
<td>Use at an assay dependent concentration. Detects a band of approximately 34 kDa (predicted molecular weight: 38 kDa).</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration. This antibody does not IP the hnRNP complex.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★☆ (2)</td>
<td>Use at an assay dependent concentration. See Abreview (April 2, 2007).</td>
</tr>
</tbody>
</table>

**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.

**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**
All lanes: Anti-hnRNP A1 antibody [9H10] (ab5832) 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: HEK293 (Human embryonic kidney cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 38 kDa
Observed band size: 37 kDa
Additional bands at: 43 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds
Ab5832 staining human lung. Staining is localized to the nucleus. Left panel: with primary antibody at 1 ng/ml. Right panel: isotype control.

Sections were stained using an automated system (Dako PT Link), at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer, citrate pH 6.0. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

**All lanes**: Anti-hnRNP A1 antibody [9H10] (ab5832) at 1/1000 dilution

**Lane 1**: Mouse NSC34 whole cell lysate with control siRNA  
**Lane 2**: Mouse NSC34 whole cell lysate with hnRNP A1 siRNA

Lysates/proteins at 10 μg per lane.

**Secondary**  
**All lanes**: IRDye® 700DX-conjugated Donkey anti-Mouse IgG at 1/3000 dilution

Performed under reducing conditions.

**Predicted band size**: 38 kDa

**Exposure time**: 1 minute

Knockdown for 72 hours.
Overlay histogram showing Jurkat cells stained with ab5832 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab5832, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions.

hnRNP A1 was immunoprecipitated using 0.5mg Hela whole cell extract, 5µg of Mouse monoclonal to hnRNP A1 (ab5832) 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 ab5832.

Secondary: Goat polyclonal to mouse IgG light chain specific (HRP) at 1/5000 dilution.

Band: 37kDa: hnRNP A1; 42kDa: We are unsure as to the identity of this extra band.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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