Anti-eIF2A antibody [3A7B11] ab181467

Overview

Product name: Anti-eIF2A antibody [3A7B11]
Description: Mouse monoclonal [3A7B11] to eIF2A
Host species: Mouse
Tested applications: Suitable for: Flow Cyt, IHC-P, WB
Species reactivity: Reacts with: Mouse, Rat, Human, Monkey
Immunogen: Recombinant fragment corresponding to Human eIF2A aa 448-576. (Expressed in E.coli). Sequence:

```
PPALRNKPITNSKLHEEEPPQNMKPQSGNDKPLSKTALKNQKHEAKKAA
KQEARSDKSPDLAPTPAPQSTPRNTVSQSISGDPEIDKKIKNLKIKLKAI
EQLKEQAATGKQLEKNQLEIQKETALLQ
```

Database link: Q9BY44

Positive control: Recombinant Human eIF2A (aa 448-576) protein; eIF2A (aa 448-576)-hlgGFc transfected HEK293 cell lysate; MCF7, PC-12, HepG2, HeLa, Cos7, K562, Jurkat, A431 and NIH3T3 cell lysates; HepG2 cells; Human cervical cancer and bladder cancer tissues.

Properties

Form: Liquid
Storage buffer: Preservative: 0.05% Sodium azide
Constituent: 99% PBS
Purity: Protein G purified
Purification notes: Purified from tissue culture supernatant.
Clonality: Monoclonal
Clone number: 3A7B11
Isotype: IgG1
Function
Functions in the early steps of protein synthesis of a small number of specific mRNAs. Acts by directing the binding of methionyl-tRNAi to 40S ribosomal subunits. In contrast to the eIF-2 complex, it binds methionyl-tRNAi to 40S subunits in a codon-dependent manner, whereas the eIF-2 complex binds methionyl-tRNAi to 40S subunits in a GTP-dependent manner. May act by impinging the expression of specific proteins.

Tissue specificity
Widely expressed. Expressed at higher level in pancreas, heart, brain and placenta.

Sequence similarities
Belongs to the WD repeat EIF2A family. Contains 3 WD repeats.

Applications
Our Abpromise guarantee covers the use of ab181467 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>1/200 - 1/400.</td>
<td>ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/200 - 1/1000.</td>
<td></td>
</tr>
</tbody>
</table>
Western blot - Anti-eIF2A antibody [3A7B11] (ab181467)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: eIF2A knockout HAP1 cell lysate (20 µg)
Lane 3: Ramos cell lysate (20 µg)
Lane 4: MOLT4 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green).
Green - ab181467 observed at 65 kDa. Red - loading control, ab181602, observed at 37 kDa.
ab181467 was shown to recognize eIF2A when eIF2A knockout samples were used, along with additional cross-reactive bands.
Wild-type and eIF2A knockout samples were subjected to SDS-PAGE. ab181467 and ab181602 (loading control to GAPDH) were diluted at 1/500 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed ab216772 and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed ab216777 secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.

Western blot - Anti-eIF2A antibody [3A7B11] (ab181467)

All lanes: Anti-eIF2A antibody [3A7B11] (ab181467) at 1/500 dilution

Lane 1: MCF7 cell lysate
Lane 2: PC-12 cell lysate
Lane 3: HepG2 cell lysate
Lane 4: HeLa cell lysate
Lane 5: Cos7 cell lysate
Lane 6: K562 cell lysate
Lane 7: Jurkat cell lysate
Lane 8: A431 cell lysate
Lane 9: NIH3T3 cell lysate

Predicted band size: 65 kDa
**Western blot - Anti-eIF2A antibody [3A7B11]**

Anti-eIF2A antibody [3A7B11] (ab181467) at 1/500 dilution + Recombinant Human eIF2A (aa 448-576) protein

**Predicted band size:** 65 kDa

Expected MWt is 40.3 kDa.

---

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [3A7B11]**

Immunohistochemical analysis of paraffin-embedded Human bladder cancer tissue labeling eIF2A with ab181467 at 1/200 dilution with DAB staining.

---

**All lanes:** Anti-eIF2A antibody [3A7B11] (ab181467) at 1/500 dilution

**Lane 1:** Non-transfected HEK293 cell lysate

**Lane 2:** eIF2A (aa 448-576)-hIgGFc transfected HEK293 cell lysate

**Predicted band size:** 65 kDa
Immunohistochemical analysis of paraffin-embedded Human cervical cancer tissue labeling eIF2A with ab181467 at 1/200 dilution with DAB staining.

Flow cytometric analysis of HepG2 cells labeling eIF2A with ab181467 at 1/200 dilution (green) compared to a negative control (red).

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors