**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:

```
PPALRNKPI7NSKLHEEPPQNMKPQSGNDKPLSKTA
LKNQRKHEAKKAA
KQEARSSDKPDALPTAPQSTPRNTVSQSISGPEID
KKKNLKKLKLKI EQLKEQAATGKQLEKNOLEK
IQKETALLQ
```

Database link: [Q9BY44](https://www.uniprot.org/uniprot/Q9BY44)

**Positive control**
Recombinant Human eIF2A (aa 448-576) protein; eIF2A (aa 448-576)-hIgGFc 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.

**Form**
Liquid

**Storage instructions**

**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

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 Notes</th>
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<tbody>
<tr>
<td>Flow Cyt</td>
<td>1/200 - 1/400. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-P</td>
<td>1/200 - 1/1000.</td>
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Target

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 40 S subunits in a codon-dependent manner, whereas the eIF-2 complex binds methionyl-tRNAi to 40 S 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.

Images

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.

**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

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.
**Western blot**

- **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

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**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)**

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

- 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).

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