

## Product datasheet

# Anti-eIF2A antibody [3A7B11] ab181467

**KO** **VALIDATED**

[2 References](#) [7 Images](#)

### Overview

---

<b>Product name</b>	Anti-eIF2A antibody [3A7B11]
<b>Description</b>	Mouse monoclonal [3A7B11] to eIF2A
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, African green monkey
<b>Immunogen</b>	Recombinant fragment corresponding to Human eIF2A aa 448-576. (Expressed in E.coli). Sequence:  PPALRNKPITNSKLHEEEPPQNMKPQSGNDKPLSKTALK NQRKHEAKKAA KQEARS DKSPDLAPTPAPQSTPRNTVSQSIGDPEIDKKI KNLKKK LKAI EQLKEQAATGKQLEKNQLEK IQKETALLQ

Database link: [Q9BY44](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

<b>Positive control</b>	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.
-------------------------	--

**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

---

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituent: 99% PBS
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified from tissue culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	3A7B11
<b>Isotype</b>	IgG1

## Applications

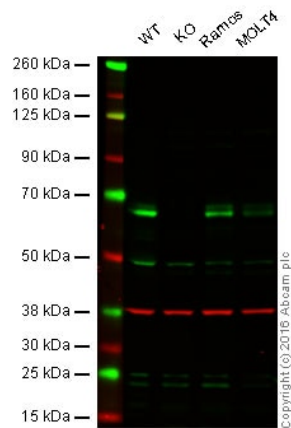
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab181467 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/200 - 1/400. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		1/200 - 1/1000.
WB		1/500 - 1/2000. Predicted molecular weight: 65 kDa.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Widely expressed. Expressed at higher level in pancreas, heart, brain and placenta.
<b>Sequence similarities</b>	Belongs to the WD repeat EIF2A family. Contains 3 WD repeats.

## Images



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

**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

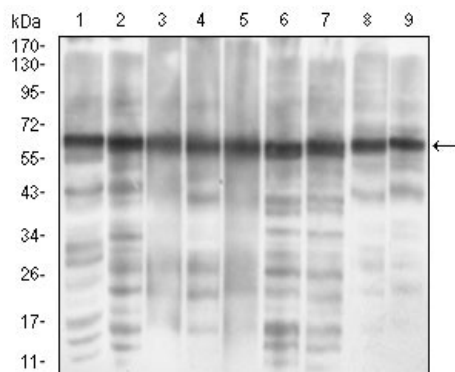
**Lane 2:** eIF2A knockout HAP1 cell lysate (20 µg)

**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 :** COS-7 cell lysate

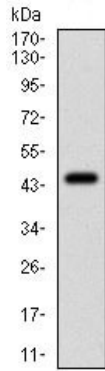
**Lane 6 :** K562 cell lysate

**Lane 7 :** Jurkat cell lysate

**Lane 8 :** A431 cell lysate

**Lane 9 :** NIH3T3 cell lysate

**Predicted band size:** 65 kDa

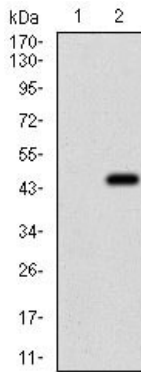


Western blot - Anti-eIF2A antibody [3A7B11]  
(ab181467)

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.



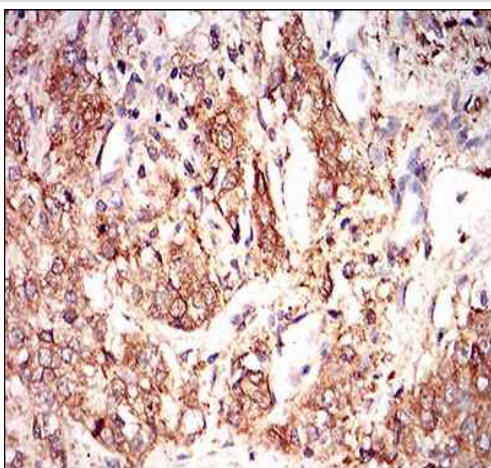
Western blot - Anti-eIF2A antibody [3A7B11]  
(ab181467)

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

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

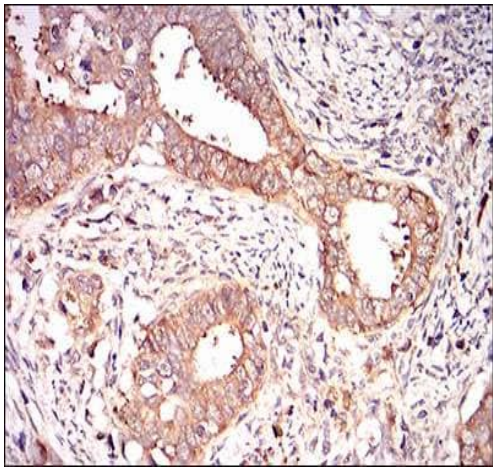
**Lane 2 :** eIF2A (aa 448-576)-hlgGFc transfected HEK293 cell  
lysate

**Predicted band size:** 65 kDa



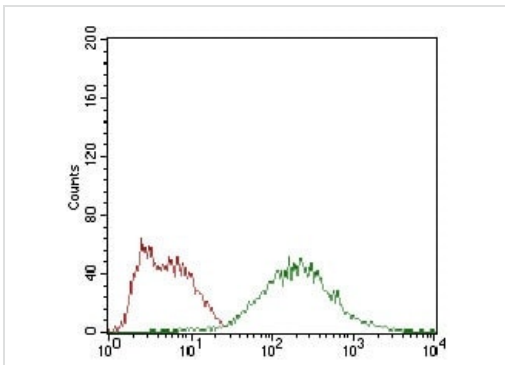
Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - Anti-eIF2A antibody [3A7B11]  
(ab181467)

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [3A7B11] (ab181467)

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



Flow Cytometry - Anti-eIF2A antibody [3A7B11] (ab181467)

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. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### 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