

## Product datasheet

# Anti-EEF2/Elongation factor 2 antibody [EP880Y] ab75748

Recombinant RabMAb

[6 References](#) [11 Images](#)

### Overview

---

<b>Product name</b>	Anti-EEF2/Elongation factor 2 antibody [EP880Y]
<b>Description</b>	Rabbit monoclonal [EP880Y] to EEF2/Elongation factor 2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human EEF2/Elongation factor 2 (C terminal). The exact sequence is proprietary.
<b>Positive control</b>	A431, NIH3T3, HeLa, C6, PC-12 and NIH/3T3 cell lysates. Kidney carcinoma tissue, rat pancreas, mouse pancreas, human glioma.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p>

### 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. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20

Preservative: 0.01% Sodium azide  
Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.1% BSA

**Purity** Protein A purified  
**Clonality** Monoclonal  
**Clone number** EP880Y  
**Isotype** IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab75748 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 (Intra)		1/70. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/10000 - 1/50000. Detects a band of approximately 95 kDa (predicted molecular weight: 95 kDa).
IP		1/20.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

## Target

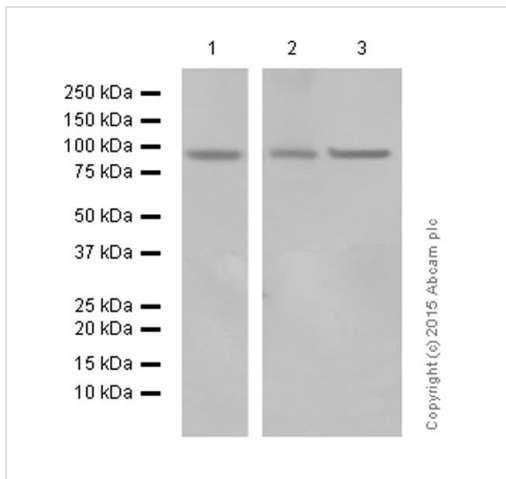
**Function** Catalyzes the GTP-dependent ribosomal translocation step during translation elongation. During this step, the ribosome changes from the pre-translocational (PRE) to the post-translocational (POST) state as the newly formed A-site-bound peptidyl-tRNA and P-site-bound deacylated tRNA move to the P and E sites, respectively. Catalyzes the coordinated movement of the two tRNA molecules, the mRNA and conformational changes in the ribosome.

**Sequence similarities** Belongs to the GTP-binding elongation factor family. EF-G/EF-2 subfamily.

**Post-translational modifications** Phosphorylation by EF-2 kinase completely inactivates EF-2. Diphthamide is 2-[3-carboxyamido-3-(trimethyl-ammonio)propyl]histidine. Diphthamide can be ADP-ribosylated by diphtheria toxin and by Pseudomonas exotoxin A, thus arresting protein synthesis.  
ISGylated.

**Cellular localization** Cytoplasm.

## Images



Western blot - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

**All lanes :** Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748) at 1/50000 dilution

**Lane 1 :** C6 (rat glioma) whole cell lysates

**Lane 2 :** PC-12 (rat adrenal gland pheochromocytoma) whole cell lysates

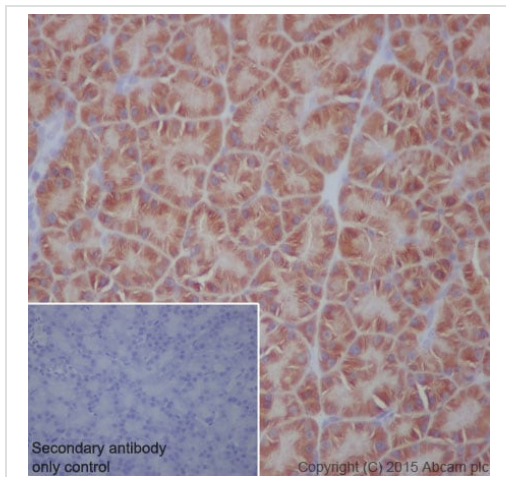
**Lane 3 :** NIH/3T3 (mouse embryo) whole cell lysates

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes :** Rabbit monoclonal [EP880Y] to EEF2/Elongation factor 2 (ab75748) at 1/100000 dilution

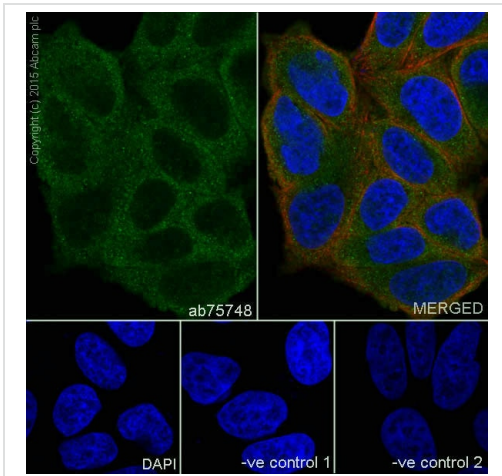
**Predicted band size:** 95 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

ab75748 staining EEF2/Elongation factor 2 in rat pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/700. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody at a dilution of 1/500.

**Negative control 1:** PBS in place of primary antibody.

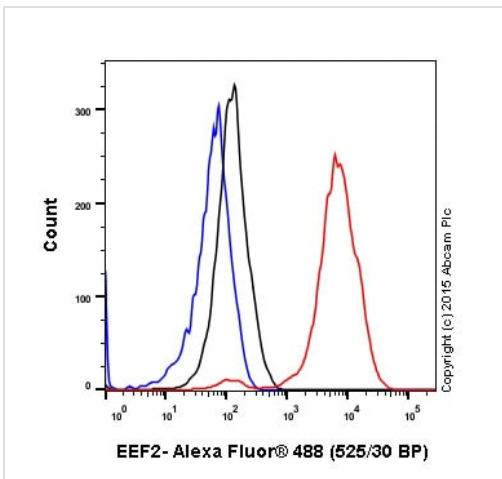


Immunocytochemistry/ Immunofluorescence - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

ab75748 staining EEF2/Elongation factor 2 in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody. **ab7291** and **ab150120** were used as counterstains for primary antibody ab75748 and secondary antibody **ab150077** respectively and DAPI was used as a nuclear counterstain.

**Negative control 1:** Rabbit primary antibody and anti-mouse secondary antibody (**ab150120**)

**Negative control 2:** Mouse primary antibody (**ab7291**) and anti-rabbit secondary antibody (**ab150077**)



Flow Cytometry (Intracellular) - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

ab75748 staining EEF2/Elongation factor 2 in the human cell line HEK293 (human embryonic kidney) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/70. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/500 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



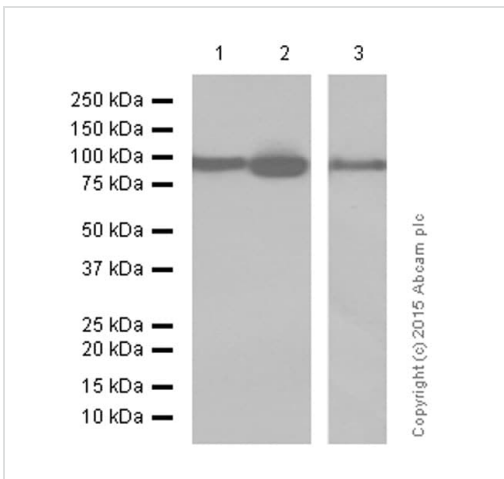
Immunoprecipitation - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

ab75748 immunoprecipitating EEF2/Elongation factor 2. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/20 and VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at a dilution of 1/10000.

**Lane 1:** HeLa (human cervix adenocarcinoma) whole cell lysate (10ug)

**Lane 2:** HeLa (human cervix adenocarcinoma) whole cell lysate

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of ab75748 in HeLa (human cervix adenocarcinoma) whole cell lysate



Western blot - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

**All lanes :** Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748) at 1/50000 dilution

**Lane 1 :** HEK293 (human embryonic kidney) whole cell lysates

**Lane 2 :** HeLa (human cervix adenocarcinoma) whole cell lysates

**Lane 3 :** A431 (human epidermoid carcinoma) whole cell lysates

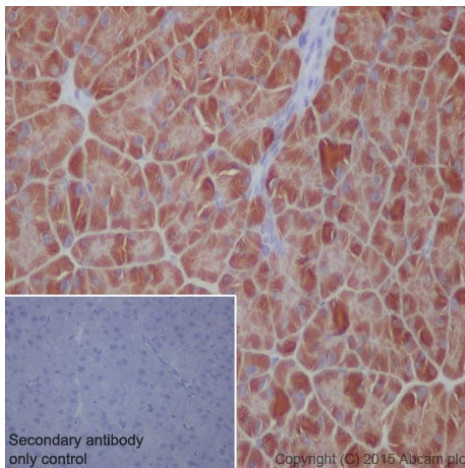
Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 95 kDa

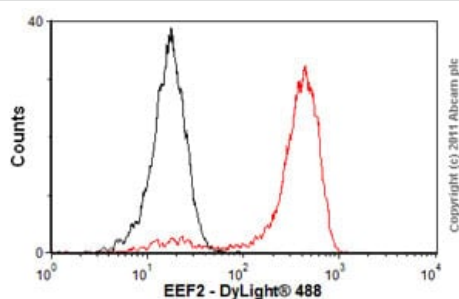
**Additional bands at:** 95 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

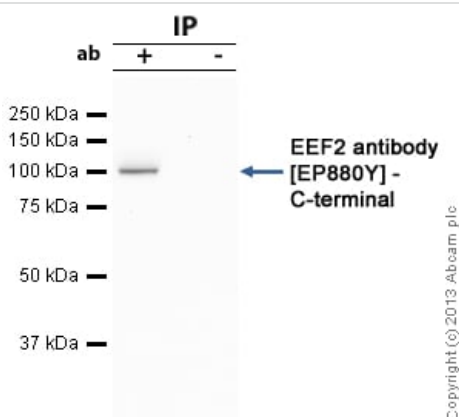
ab75748 staining EEF2/Elongation factor 2 in mouse pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody.

**Negative control 1:** PBS in place of primary antibody.



Flow Cytometry (Intracellular) - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

Overlay histogram showing HeLa cells stained with ab75748 (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 (ab75748, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunoprecipitation - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

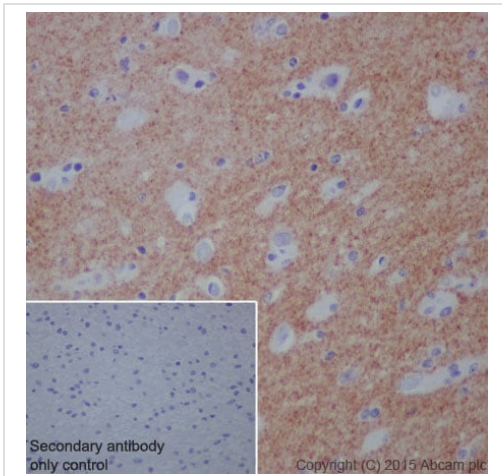
EEF2/Elongation factor 2 was immunoprecipitated using 0.5mg Hela whole cell extract, 5µg of Rabbit monoclonal to EEF2/Elongation factor 2 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

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 ab75748.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).

Band: 95kDa; EEF2/Elongation factor 2







ab75748 staining EEF2/Elongation factor 2 in human glioma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody.

**Negative control 1:** PBS in place of primary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-EEF2/Elongation factor 2 antibody [EP880Y] (ab75748)

**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