abcam

Product datasheet

Anti-eIF2A antibody [EPR11042] ab169528

KO VALIDATED Recombinant RabMAb

5 Abreviews 27 References 13 Images

Overview

Product name	Anti-eIF2A antibody [EPR11042]
Description	Rabbit monoclonal [EPR11042] to eIF2A
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF **Unsuitable for:** Flow Cyt or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human eIF2A aa 450-550.
Positive control	WB: Molt4, Ramos, HAP1, PC-12, and NIH/3T3 lysates. IHC-P: Human pancreas, Human prostatic hyperplasia, Human lung cancer, Mouse cerebrum, and Rat cerebrum tissues. ICC/IF: HeLa cells, MCF7 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR11042

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab169528 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
WB	★★★★★ (3)	1/1000 - 1/5000. Detects a band of approximately 65 kDa (predicted molecular weight: 65 kDa).
IHC-P	★★★★★ (1)	1/50 - 1/100. Perform heat mediated antigen retrieval.
ICC/IF		1/100.

Application notes Is unsuitable for Flow Cyt or IP.

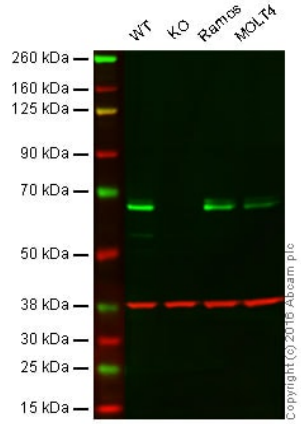
Target

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 impiging 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

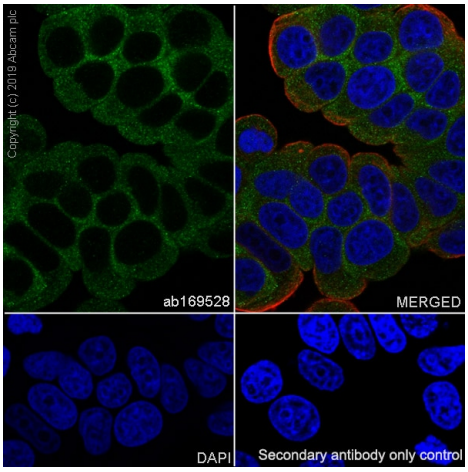


Western blot - Anti-eIF2A antibody [EPR11042] (ab169528)

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 - ab169528 observed at 65 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

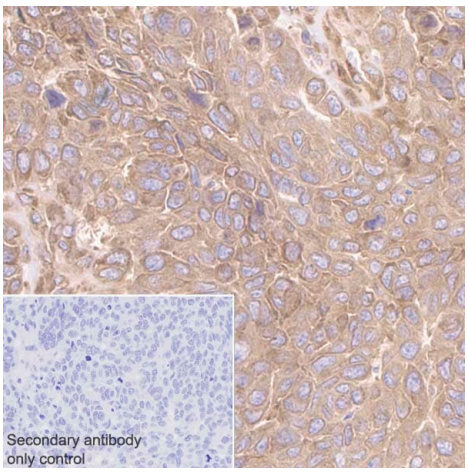
ab169528 was shown to specifically react with eIF2A when eIF2A knockout samples were used. Wild-type and eIF2A knockout samples were subjected to SDS-PAGE. ab169528 and **ab8245** (loading control to GAPDH) were diluted at 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD)

preadsorbed (**ab216776**) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling eIF2A with Purified ab169528 at 1:100 dilution (4.3 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling eIF2A with ab169528 at 1/200 dilution (12.52 µg/ml). Heat mediated antigen retrieval was performed. ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

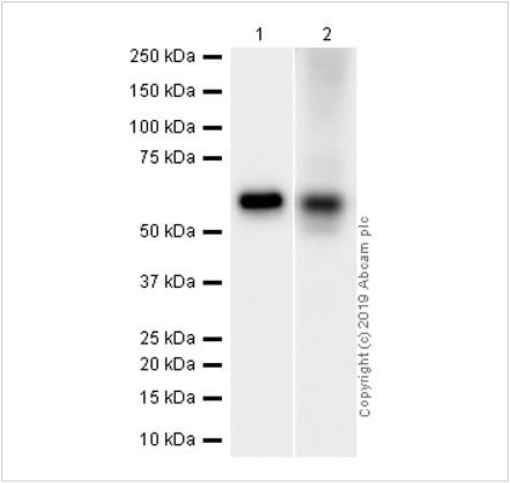
Western blot - Anti-eIF2A antibody [EPR11042] (ab169528)

Anti-eIF2A antibody [EPR11042] (ab169528) at 1/1000 dilution (Purified) + NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 65 kDa
Observed band size: 65 kDa



Western blot - Anti-eIF2A antibody [EPR11042] (ab169528)

All lanes : Anti-eIF2A antibody [EPR11042] (ab169528) at 1/1000 dilution (Purified)

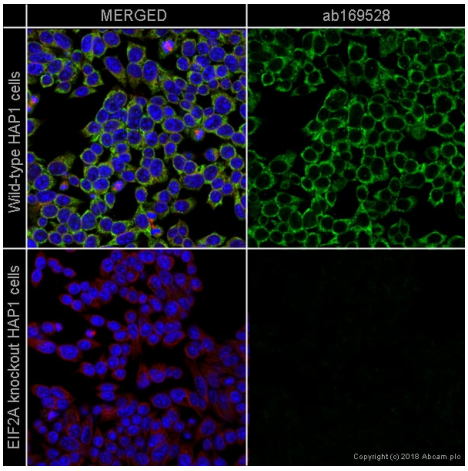
Lane 1 : Ramos (Human Burkitt's lymphoma Blymphocyte) whole cell lysates
Lane 2 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

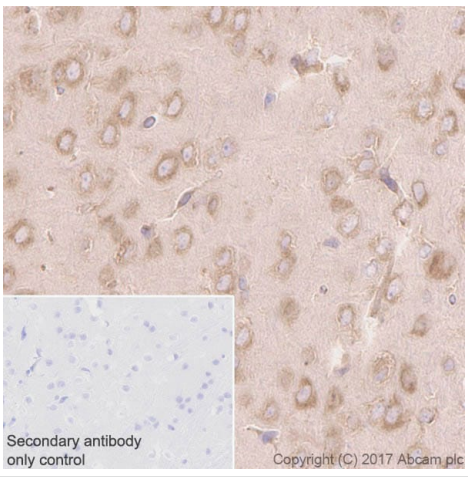
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 65 kDa
Observed band size: 65 kDa



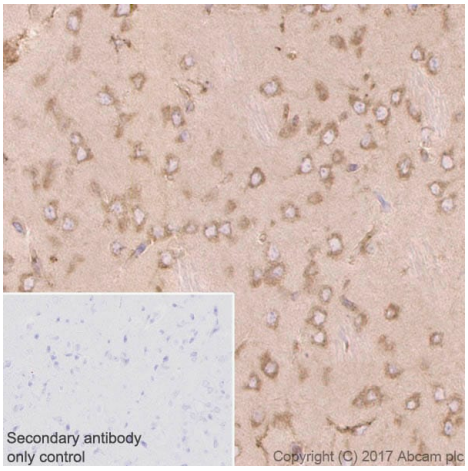
Immunocytochemistry/ Immunofluorescence - Anti-eIF2A antibody [EPR11042] (ab169528)

ab169528 staining eIF2A in wild-type HAP1 cells (top panel) and EIF2A knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol for 5 minutes, permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1 hour. The cells were then incubated with ab169528 at 1µg/ml and **ab195889** at 1/250 dilution (shown in pseudo colour red) overnight at +4°C, followed by a further incubation at room temperature for 1 hour with **Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody** at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.



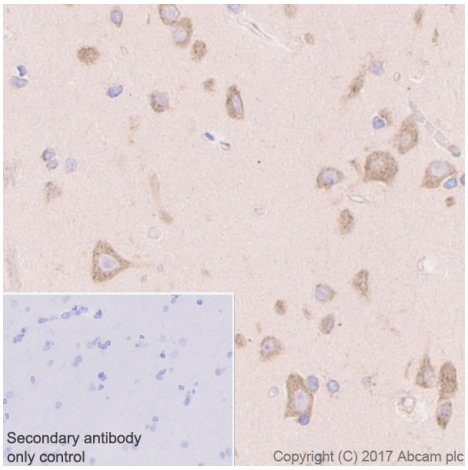
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat cerebrum tissue sections labeling eIF2A with ab169528 at 1/200 dilution (12.52 µg/ml). Heat mediated antigen retrieval was performed. ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



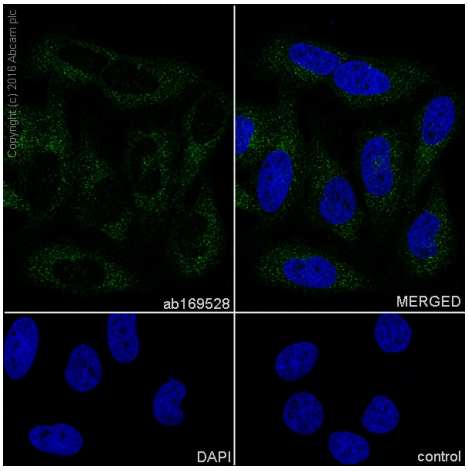
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse cerebrum tissue sections labeling eIF2A with ab169528 at 1/200 dilution (12.52 µg/ml). Heat mediated antigen retrieval was performed. ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



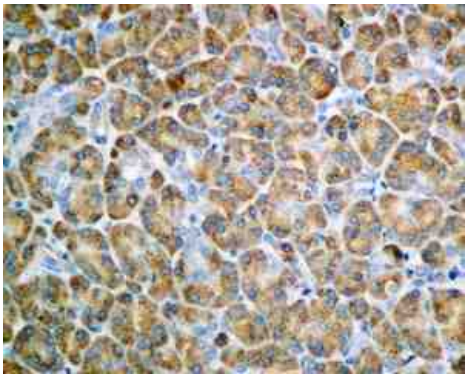
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cerebrum tissue sections labeling eIF2A with ab169528 at 1/200 dilution (12.52 µg/ml). Heat mediated antigen retrieval was performed. ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



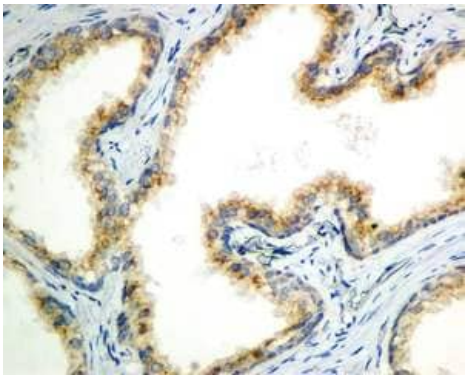
Immunocytochemistry/ Immunofluorescence - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunocytochemistry/Immunofluorescence analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) labeling eIF2A with purified ab169528 at 1/250 dilution. Cells were fixed with 4% PFA and permeabilized with 0.1% tritonX-100. **ab150077** Goat anti rabbit IgG (Alexa Fluor®488) at 1/1000 was used as the secondary antibody. Nuclei were counterstained with DAPI. PBS was used instead of the primary antibody as the negative control.



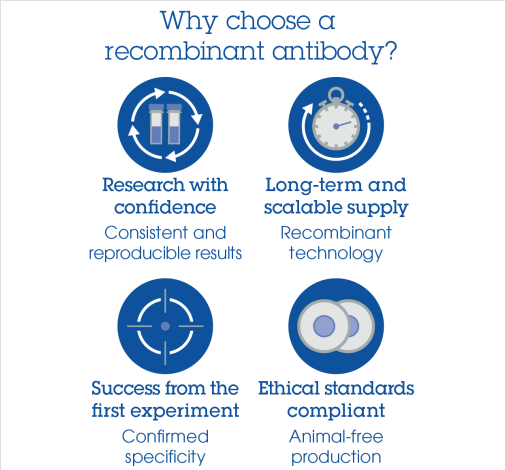
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemical analysis of paraffin embedded Human pancreas tissue labeling eIF2A with unpurified ab169528 antibody at 1/50.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2A antibody [EPR11042] (ab169528)

Immunohistochemical analysis of paraffin embedded Human prostatic hyperplasia tissue labeling eIF2A with unpurified ab169528 antibody at 1/50.



Anti-eIF2A antibody [EPR11042] (ab169528)

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