abcam

Product datasheet

Anti-eIF4E antibody [Y449] ab33768

Recombinant RabMAb

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Overview

Product name	Anti-eIF4E antibody [Y449]
Description	Rabbit monoclonal [Y449] to eIF4E
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, WB, IHC-P, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human eIF4E aa 150-250. The exact sequence is proprietary.
Positive control	WB: HEK-293, HepG2, NIH/3T3, RAW 264.7, and C6 cell lysates; IHC-P: Human ovarian cancer tissue. Mouse and rat testis tissues; ICC/IF: RAW 264.7 cells; Flow Cyt (intra): HEK293 cells; IP: NIH/3T3 cell lysate.
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	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y449

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab33768 in the following tested applications.

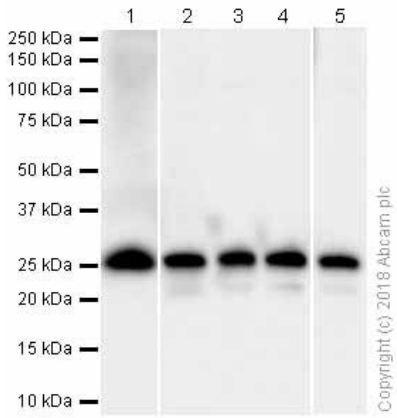
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration.
WB	★★★★★ **(7)**	1/1000. Detects a band of approximately 30 kDa (predicted molecular weight: 25 kDa). **For unpurified use at 1/5000 - 1/20000.**
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
IP		1/30.

Target

Function	Its translation stimulation activity is repressed by binding to the complex CYFIP1-FMR1 (By similarity). Recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation of protein synthesis and facilitates ribosome binding by inducing the unwinding of the mRNAs secondary structures. Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression. In the CYFIP1-EIF4E-FMR1 complex this subunit mediates the binding to the mRNA cap.
Sequence similarities	Belongs to the eukaryotic initiation factor 4E family.
Post-translational modifications	Phosphorylation increases the ability of the protein to bind to mRNA caps and to form the eIF4F complex.

Images



Western blot - Anti-eIF4E antibody [Y449] (ab33768)

All lanes : Anti-eIF4E antibody [Y449] (ab33768) at 1/1000 dilution

Lane 1 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate
Lane 2 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate
Lane 3 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate
Lane 4 : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate
Lane 5 : C6 (Rat glial tumor glial cell) whole cell lysate

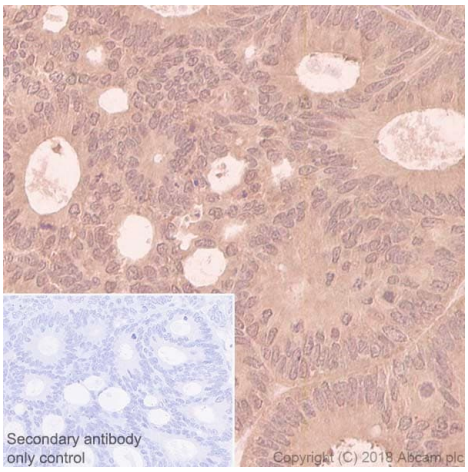
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 25 kDa
Observed band size: 28 kDa

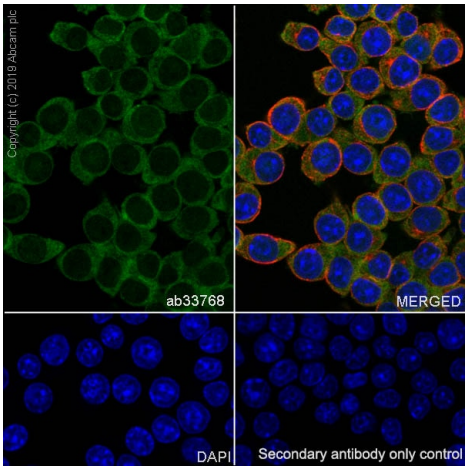
Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time:
Lane 1: 20 seconds.
Lanes 2-5: 8 seconds.



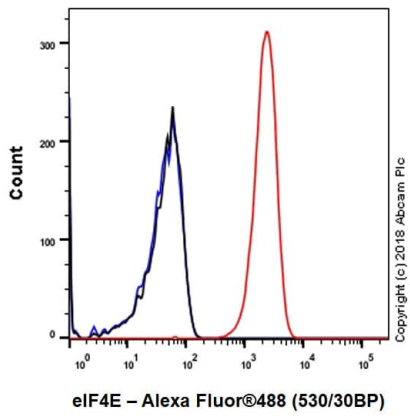
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF4E antibody [Y449] (ab33768)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian cancer tissue labelling eIF4E with ab33768 at a dilution of 1/500. Antigen retrieval was performed **ab93684**, Tris/EDTA buffer, pH 9. A ready to use goat anti-rabbit IgG H&L (HRP Polymer) was used as the secondary antibody. Counter stained with Hematoxylin.



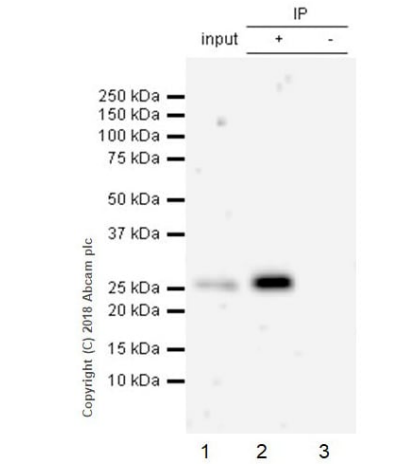
Immunocytochemistry/ Immunofluorescence - Anti-eIF4E antibody [Y449] (ab33768)

Immunocytochemistry/ Immunofluorescence analysis of RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labeling eIF4E with Purified ab33768 at 1/50 (10 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.



Flow Cytometry (Intracellular) - Anti-eIF4E antibody [Y449] (ab33768)

Intracellular Flow Cytometry analysis of HEK-293 (Human embryonickidney epithelial cell) cells labeling eIF4E with Purified ab33768 at 1/50 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

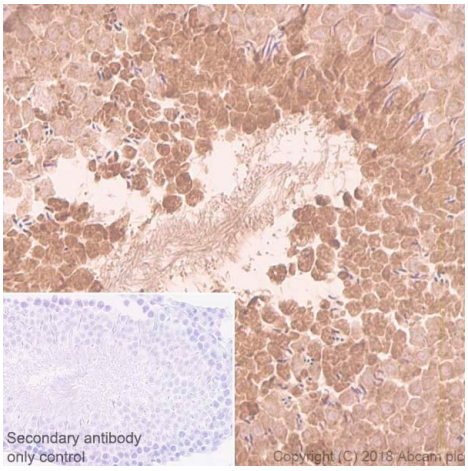


Immunoprecipitation - Anti-eIF4E antibody [Y449] (ab33768)

eIF4E was immunoprecipitated from 10 µg NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate with ab33768 at a 1/30 dilution. Western blot was performed from the immunoprecipitate using ab33768 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

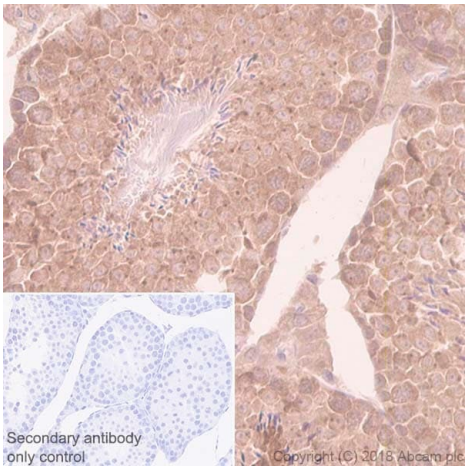
Lane 1: NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate 10 µg (Input).
Lane 2: ab33768 IP in NIH/3T3 whole cell lysate.
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab33768 in NIH/3T3 whole cell lysate.

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF4E antibody [Y449] (ab33768)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat testis tissue labelling eIF4E with ab33768 at a dilution of 1/500. Antigen retrieval was performed **ab93684**, Tris/EDTA buffer, pH 9. A ready to use goat anti-rabbit IgG H&L (HRP Polymer) was used as the secondary antibody. Counter stained with Hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF4E antibody [Y449] (ab33768)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse testis tissue labelling eIF4E with ab33768 at a dilution of 1/500. Antigen retrieval was performed **ab93684**, Tris/EDTA buffer, pH 9. A ready to use goat anti-rabbit IgG H&L (HRP Polymer) was used as the secondary antibody. Counter stained with Hematoxylin.

Anti-eIF4E antibody [Y449] (ab33768)

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