

Product datasheet

Anti-eIF4E antibody [5D11] ab171091

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Overview

Product name	Anti-eIF4E antibody [5D11]
Description	Mouse monoclonal [5D11] to eIF4E
Host species	Mouse
Tested applications	Suitable for: ICC/IF, WB, IP
Species reactivity	Reacts with: Human Does not react with: Rat
Immunogen	Recombinant full length protein corresponding to Human eIF4E. Produced in HEK293T cells. Database link: P06730
Positive control	Hela, MCF7, K562, Jurkat, U2OS and HepG2 lysates.

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: 0.05% Sodium azide Constituents: 30% Glycerol, 0.1% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	5D11
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab171091** 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
ICC/IF		1/100 - 1/500.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 25 kDa.
IP		Use at 6 µg/mg of lysate.

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.

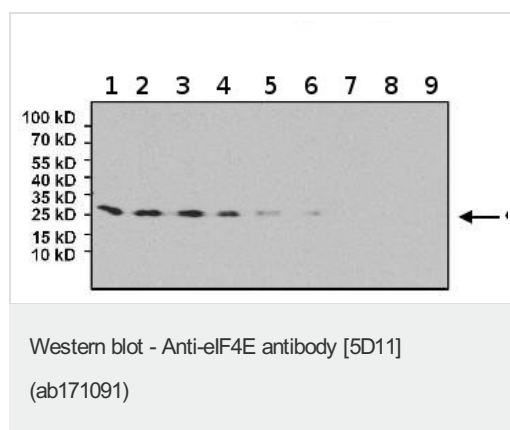
Sequence similarities

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



All lanes : Anti-eIF4E antibody [5D11] (ab171091) at 1/1000 dilution

Lane 1 : MCF7 whole cell lysate

Lane 2 : HeLa whole cell lysate

Lane 3 : K562 whole cell lysate

Lane 4 : Jurkat whole cell lysate

Lane 5 : U2OS whole cell lysate

Lane 6 : HepG2 whole cell lysate

Lane 7 : C2C12 whole cell lysate

Lane 8 : NIH3T3 whole cell lysate

Lane 9 : NRK whole cell lysate

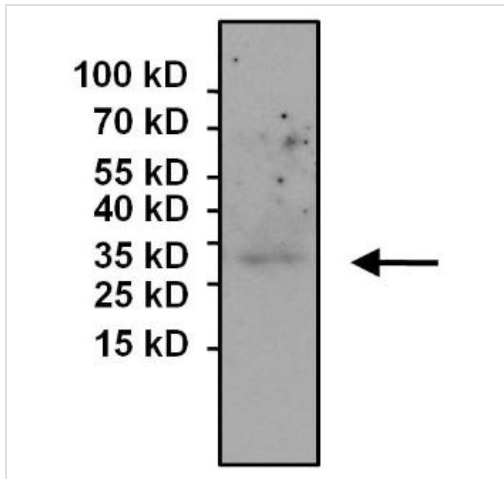
Lysates/proteins at 80 µg per lane.

Secondary

All lanes : Goat anti-mouse-HRP at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 25 kDa



Immunoprecipitation - Anti-eIF4E antibody [5D11] (ab171091)

Immunoprecipitation of eIF4E from HeLa whole cell lysate using ab171091 at 3µg per 500µg lysate.

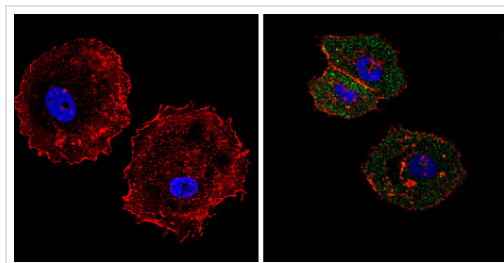
Lane 1

Primary: [ab117091](#), 1/1000 dilution

Sample: HeLa whole cell lysate

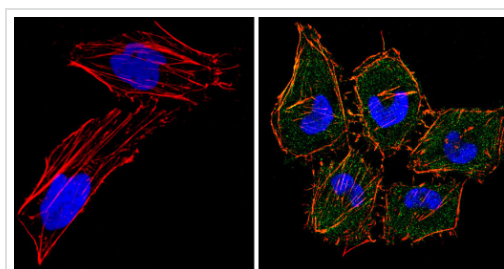
Anti-PINK1 antibody [38CT20.8.5] ([ab117091](#)) at 1/1000 dilution + HeLa whole cell lysate

Developed using the ECL technique.



Immunocytochemistry/ Immunofluorescence - Anti-eIF4E antibody [5D11] (ab171091)

ab171091 staining eIF4E (green) in the cytoplasm of MCF-7 cells (right) compared with a negative control in the absence of primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4 °C. A DyLight 488-conjugated goat-anti-mouse IgG (H+L) secondary antibody was used as the secondary antibody. Red (phalloidin) - F-actin, Blue (DAPI) - nuclei. Images were taken at a magnification of 60x.



Immunocytochemistry/ Immunofluorescence - Anti-eIF4E antibody [5D11] (ab171091)

ab171091 staining eIF4E (green) in the cytoplasm of HeLa cells (right) compared with a negative control in the absence of primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4 °C. A DyLight 488-conjugated goat-anti-mouse IgG (H+L) secondary antibody was used as the secondary antibody. Red (phalloidin) - F-actin, Blue (DAPI) - nuclei. Images were taken at a magnification of 60x.

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