abcam

ab129369

Anti-eIF4B antibody [1F5]

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human EIF4B. The exact immunogen used to generate this antibody is proprietary information. Database link P23588
Clone number	1F5
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/200 - 1/1000

Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information EIF4B

Function	Required for the binding of mRNA to ribosomes. Functions in close association with EIF4-F and EIF4-A. Binds near the 5'-terminal cap of mRNA in presence of EIF-4F and ATP. Promotes the ATPase activity and the ATP-dependent RNA unwinding activity of both EIF4-A and EIF4-F.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

This product was changed from ascites to supernatant. Lot no's high than GR185156-5 are from Tissue Culture Supernatant

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EIF4B also known as eukaryotic translation initiation factor 4B is a protein that enhances the RNA helicase activity of the eIF4A protein during the initiation of translation. It weighs approximately 80 kDa. eIF4B interacts directly with RNA stimulating the unwinding of mRNA secondary structures allowing the ribosome to access the mRNA strand for translation. It is expressed in most cell types playing an essential role in efficient protein synthesis.
Biological function summary	EIF4B supports the recruitment of ribosomal subunits to mRNA by interacting with eIF3 and the large ribosomal subunit. It forms part of the larger eIF4F complex which is important for the cap-dependent initiation of translation. By working with eIF4A and eIF4G eIF4B facilitates the scanning process of the ribosome to the start codon on mRNA leading to proper protein translation.
Pathways	EIF4B participates in the mTOR signaling pathway a central regulator of cellular growth and metabolism. It also contributes to the PI3K/AKT/mTOR pathway affecting cell proliferation and survival. Additionally eIF4B interacts with other proteins like eIF4E and eIF5 linking its function to these pathways and ensuring effective coordination of translation initiation as well as regulation under various conditions.
Associated diseases and disorders	Aberrant eIF4B activity has connections to cancer and neurodegenerative diseases. Overexpression or dysregulation of eIF4B is often observed in various cancers due to its role in promoting protein synthesis necessary for tumor growth. It also indirectly interacts with oncogenic proteins such as mTOR highlighting its importance in cancer. In neurodegenerative disorders eIF4B's role in protein homeostasis is disrupted contributing to disease progression alongside pathways involving proteins like eIF4A.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

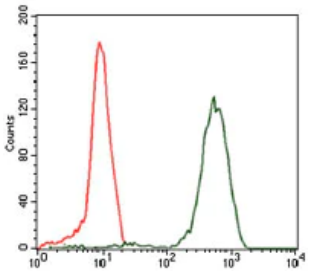
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

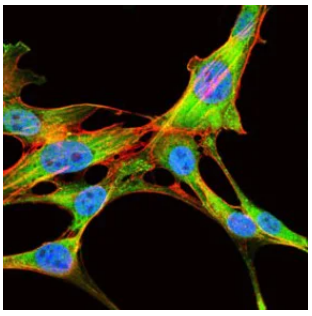
4 product images



Flow Cytometry - Anti-eIF4B antibody [1F5] (ab129369)

EIF4B Flow Cytometry staining using mouse Anti-eIF4B antibody

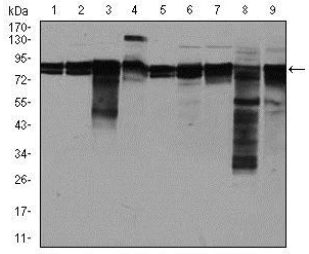
ab129369 at 1/200 dilution (green) or negative control (red) staining eIF4B in HeLa cells by flow cytometry.



Immunocytochemistry/ Immunofluorescence - Anti-eIF4B antibody [1F5] (ab129369)

EIF4B Immunocytochemistry/ Immunofluorescence staining using mouse Anti-eIF4B antibody

ab129369 at 1/200 dilution staining eIF4B in NIH3T3 cells by immunofluorescence. DNA was stained with DRAQ5 dye (blue) and actin with Alexa 555 phalloidin (red).



Western blot - Anti-eIF4B antibody [1F5] (ab129369)

All lanes:
Western blot - Anti-eIF4B antibody [1F5] (ab129369) at 1/500 dilution

Lane 1:
A549 cell lysate

Lane 2:
A431 cell lysate

Lane 3:
HepG2 cell lysate

Lane 4:
HEK293 cell lysate

Lane 5:
HeLa cell lysate

Lane 6:
Jurkat cell lysate

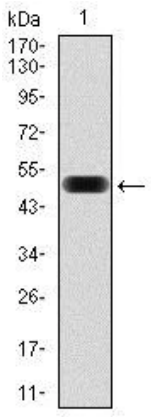
Lane 7:
K562 cell lysate

Lane 8:

NIH3T3 cell lysate

Lane 9:
MCF-7 cell lysate

Predicted band size: 69 kDa



Western blot - Anti-eIF4B antibody [1F5] (ab129369)

The expected molecular weight of the recombinant fragment is 48 kDa.
All lanes:
Western blot - Anti-eIF4B antibody [1F5] (ab129369) at 1/500 dilution

All lanes:
eIF4B recombinant fragment (aa 381-585)

Predicted band size: 69 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.