

Anti-EIF4E Monoclonal Antibody

Catalog Number: M00135

About EIF4E

Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4-phosphate) and PtdIns (4,5) P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3) . PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Participates in cellular signaling in response to various growth factors.

Overview

Product Name	Anti-EIF4E Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-EIF4E Monoclonal Antibody catalog # M00135. Tested in WB, IHC, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IP, IHC, WB
Clonality	Monoclonal AFHI-5
Formulation	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P06730

Technical Details

Immunogen	A synthesized peptide derived from human EIF4E eIF4E, a protein modulates translation of maternal mRNAs in early embryos before the onset of zygotic transcription. eIF4E also influences the overall rate of translation. eIF4E binds to the 7 methyl GTP cap structure of eukaryotic mRNAs. Phosphorylation of eIF4E on serine 209 regulates the affinity of this protein for the 7 methyl GTP cap and/or RNA. Phosphorylation also enhances the interaction of eIF4E with eIF4G, which form a complex known as eIF4F. eIF4E phosphorylation is correlated with increased translational rate in a number of cell types.
Isotype	Rabbit IgG
Form	Liquid
Concentration	Actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Affinity-chromatography

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

WB 1:100-1:5000

IHC 1:100-1:500

IP 1:30

FC 1:40

Anti-EIF4E Monoclonal Antibody (M00135) Images

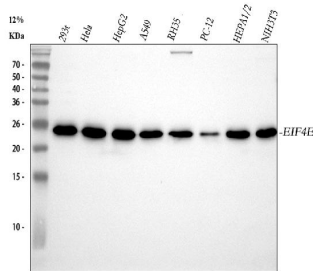


Figure 1. Western blot analysis of EIF4E using anti-EIF4E antibody (M00135).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human 293T whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human HepG2 whole cell lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: rat RH35 whole cell lysates,
Lane 6: rat PC-12 whole cell lysates,
Lane 7: mouse HEP1-2 whole cell lysates,
Lane 8: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EIF4E antigen affinity purified monoclonal antibody (Catalog # M00135) at 1:100 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for EIF4E at approximately 25 kDa. The expected band size for EIF4E is at 25 kDa.

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