
Product Name: 4E-BP1/2/3 (Phospho-Thr 45) Mouse Monoclonal Antibody**Catalog #: AMM86144**

For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	WB,IP
Reactivity	Human, Mouse, Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Purified antibody in PBS with 0.05% sodium azide and 50% glycerol.
Purification	Affinity Purification

Application

Dilution Ratio	WB 1:500-1:2000,IP 1:20-1:50
Molecular Weight	21kDa

Antigen Information

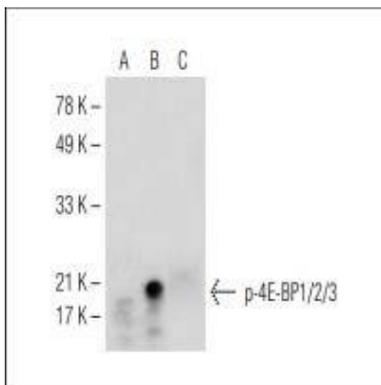
Gene Name	4E-BP1/2/3 (Phospho-Thr 45) 4E-BP1 antibody</br> 4EBP1 antibody</br> 4EBP1_HUMAN antibody</br> BP 1 antibody</br> eIF4E binding protein 1 antibody</br> eIF4E-binding protein 1 antibody</br>
Alternative Names	Eif4ebp1 antibody</br> Eukaryotic translation initiation factor 4E-binding protein 1 antibody</br> PHAS-I antibody</br> PHASI antibody</br> Phosphorylated heat- and acid-stable protein regulated by insulin 1 antibody</br>
Gene ID	1978.0
SwissProt ID	Q13541
Immunogen	peptide

Background

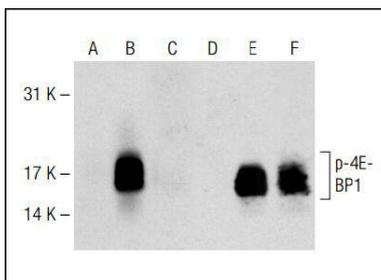
The multisubunit eukaryotic translation initiation factor (eIF) 4F recruits 40S ribosomal subunits to the 5' end of mRNA. The eIF4F subunit eIF4E interacts directly with the mRNA 5' cap structure. Assembly of the eIF4F complex is inhibited by a family of repressor polypeptides, the eIF4E-binding proteins (4E-BPs). 4E-BP1 (also known as PHAS-1) normally binds eIF4E, inhibiting cap-dependent translation. Hyper-phosphorylation of 4E-BP1 disrupts this binding, activating cap-dependent translation. The PI3-kinase/Akt pathway and the FRAP/mTOR kinase regulate 4E-BP1. 4E-BP1 is phosphorylated in vivo on multiple residues and phosphorylation by FRAP/mTOR on Threonine 37 and Threonine 46 of human 4E-BP1 may prime it for sub-sequent phosphorylation at sites including Serine 65 and Threonine 70. The corresponding rat residues include Threonine 36, Threonine 45, Serine 64 and Threonine 69. In vitro, 4E-BP1 is also phosphorylated by ataxia telangiectasia (ATM) at human Serine 112 (rat Serine 111) in response to an increase in insulin levels.

Research Area

Image Data



Western blot analysis of 4E-BP1/2/3 phosphorylation in untreated (A), calyculin A treated (B) and calyculin A and lambda protein phosphatase treated (C) Jurkat whole cell lysates.



Western blot analysis of 4E-BP1 phosphorylation in nontransfected (A,D), untreated human 4E-BP1 transfected (B,E) and lambda protein phosphatase treated human 4E-BP1 transfected (C,F) 293T whole cell lysates. Antibodies tested include p-4E-BP1/2/3 (A,B,C) and 4E-BP1 (D,E,F).