

Product Name: 4E-BP1 (phospho Thr46) Rabbit Polyclonal Antibody**Catalog #: APRab04184**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	18kDa

Antigen Information

Gene Name	EIF4EBP1
Alternative Names	EIF4EBP1; Eukaryotic translation initiation factor 4E-binding protein 1; 4E-BP1; eIF4E-binding protein 1; Phosphorylated heat- and acid-stable protein regulated by insulin 1; PHAS-I
Gene ID	1978.0
SwissProt ID	Q13541
Immunogen	The antiserum was produced against synthesized peptide derived from human 4E-BP1 around the phosphorylation site of Thr45. AA range:13-62

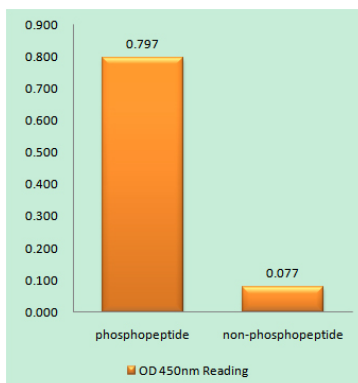
Background

eukaryotic translation initiation factor 4E binding protein 1 (EIF4EBP1) Homo sapiens This gene encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor 4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this protein with eIF4E inhibits complex assembly and represses translation. This protein is phosphorylated in response to various signals including UV irradiation and insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation. [provided by RefSeq, Jul 2008],function:Regulates eIF4E activity by preventing its assembly into the eIF4F complex. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase pathway.,PTM:Phosphorylated on serine and threonine residues in response to insulin, EGF and PDGF. Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the eIF4E-binding protein family.,subunit:Nonphosphorylated EIF4EBP1 competes with EIF4G1/EIF4G3 to interact with EIF4E; insulin stimulated MAP-kinase (MAPK1 and MAPK3) phosphorylation of EIF4EBP1 causes dissociation of the complex allowing EIF4G1/EIF4G3 to bind and consequent initiation of translation. Rapamycin can attenuate insulin stimulation, mediated by FKBP.

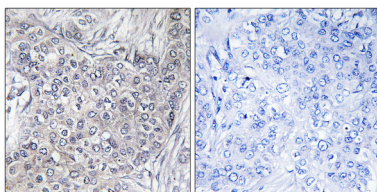
Research Area

Regulates Angiogenesis; Insulin Receptor; mTOR; ErbB/HER; Akt_PKB; AMPK

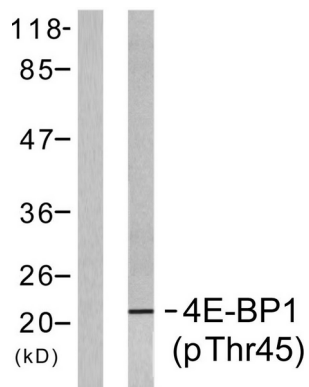
Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using 4E-BP1 (Phospho-Thr45) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using 4E-BP1 (Phospho-Thr45) Antibody. The picture on the right is blocked with the phosphopeptide.



Western blot analysis of lysates from MDA-MB-435 cells treated with EGF 200ng/ml 5', using 4E-BP1 (Phospho-Thr45) Antibody. The lane on the right is blocked with the phospho peptide.