



4E-BP1 (phospho Thr46) Polyclonal Antibody

Catalog No	YP-Ab-03508
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	EIF4EBP1
Immunogen	The antiserum was produced against synthesized peptide derived from human 4E-BP1 around the phosphorylation site of Thr45. AA range:13-62
Specificity	Phospho-4E-BP1 (T46) Polyclonal Antibody detects endogenous levels of 4E-BP1 protein only when phosphorylated at T46.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EIF4EBP1;2C3F3;4E BP1;4E-BP1;BP 1;Eukaryotic translation initiation factor 4E-binding protein 1;eIF4E-binding protein 1;Phosphorylated heat- and acid-stable protein regulated by insulin 1;PHAS-I
Observed Band	18kD
Calculated Molecular Weight	18kD
Cell Pathway	nucleoplasm,cytoplasm,cytosol,protein complex,
Tissue Specificity	Colon,Epithelium,Lung,Placenta,Platelet,
Function	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.

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],

matters needing attention

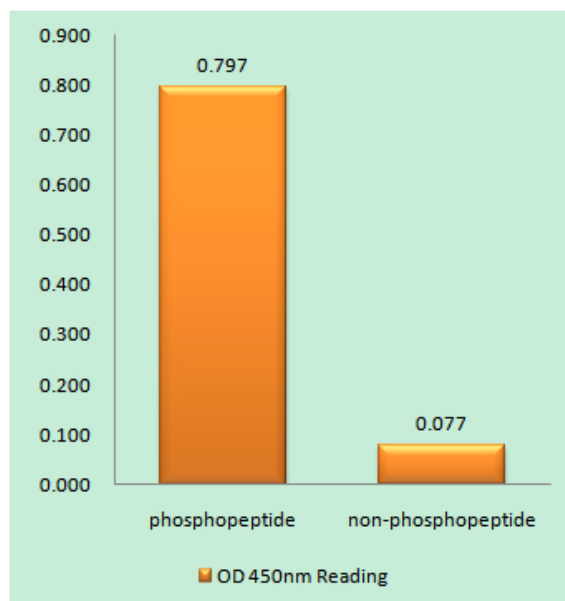
Avoid repeated freezing and thawing!

Usage suggestions

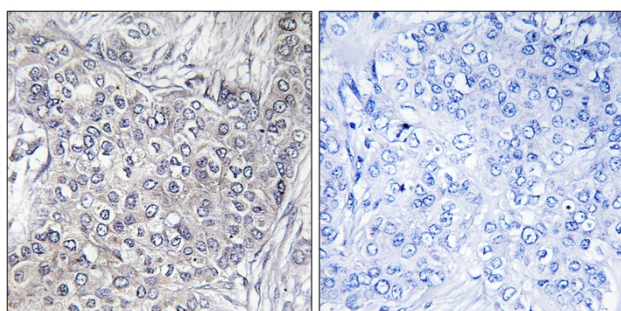
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



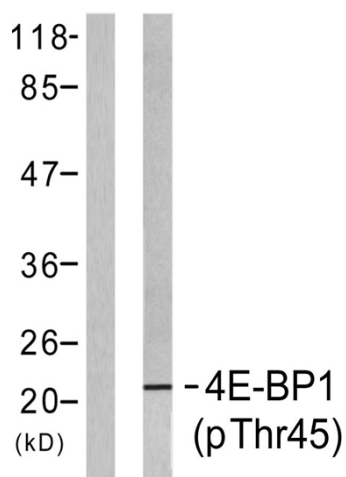
Products Images



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 phosphopeptide.