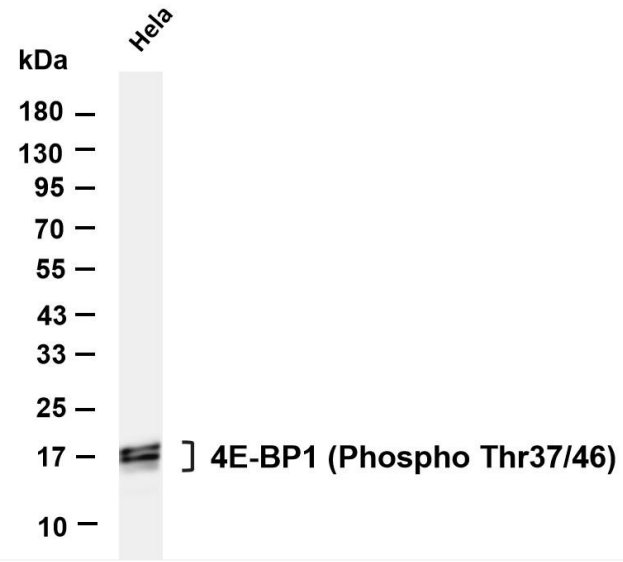
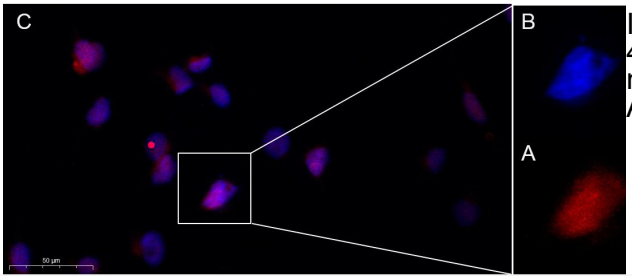
4E-BP1 (Phospho Thr37/46) Rabbit mAb

Catalog No	YP-rAb-18443
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,ELISA
Gene Name	EIF4EBP1
Protein Name	Eukaryotic translation initiation factor 4E-binding protein 1
Purification Process	Protein A
Specificity	4E-BP1 (Phospho Thr37/46) Antibody detects endogenous levels of 4E-BP1 protein only when phosphorylated at 4E-BP1 (Phospho T37/46).The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):TTpGG
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	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
Observed Band	15-20kD
Calculated Molecular Weight	13kD
Cell Pathway	Nucleus
Tissue Specificity	Colon,Epithelium,Lung,Placenta,Platelet,
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 FKBPs.,
Background	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.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-4E-BP1 (Phospho Thr37/46) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Hela serum was starved overnight and treated with insulin(100nM) for 5 minutes Predicted band size: 13kDa Observed band size: 15-20kDa



Immunofluorescence analysis of HeLa . Picture A: 4E-BP1 (Phospho 4E-BP1 (Phospho Thr37/46)) Rabbit mAb (red). Picture B: DAPI (blue). Picture C: Merge of A+B