



# 4E-BP1 Polyclonal Antibody

<b>Catalog No</b>	BYab-03667
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Sheep
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	EIF4EBP1
<b>Protein Name</b>	Eukaryotic translation initiation factor 4E-binding protein 1
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human 4E-BP1. AA range:13-62
<b>Specificity</b>	4E-BP1 Polyclonal Antibody detects endogenous levels of 4E-BP1 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	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
<b>Observed Band</b>	18kD
<b>Cell Pathway</b>	nucleoplasm,cytoplasm,cytosol,protein complex,
<b>Tissue Specificity</b>	Colon,Epithelium,Lung,Placenta,Platelet,
<b>Function</b>	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

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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!

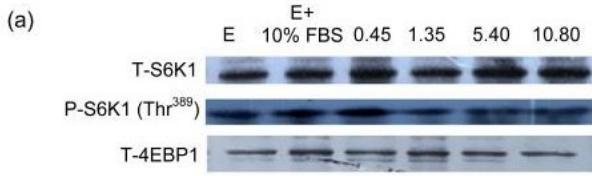
**Usage suggestions**

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

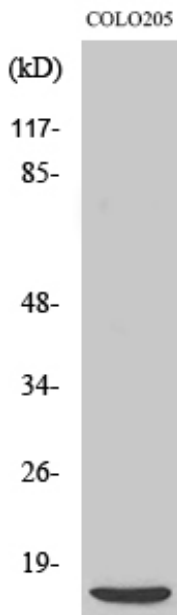
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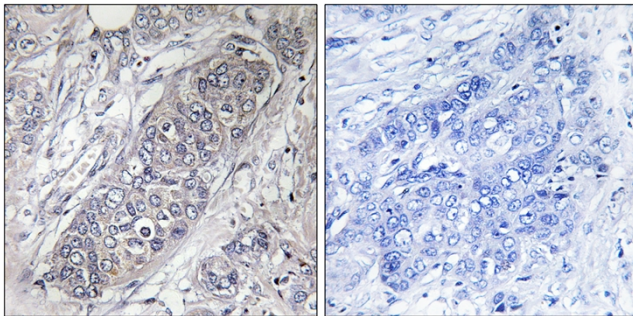
## Products Images



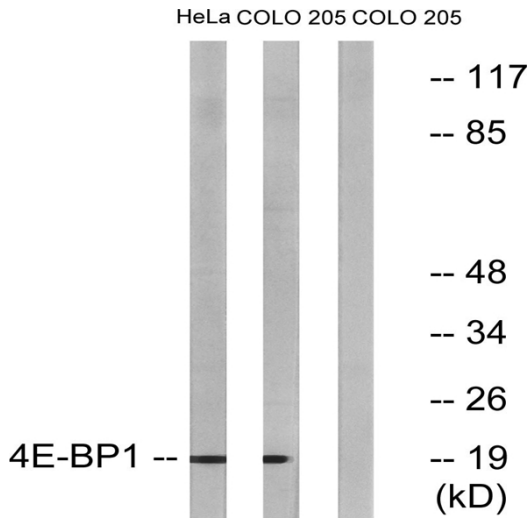
Gao, Hai-na, et al. "Leucine and histidine independently regulate milk protein synthesis in bovine mammary epithelial cells via mTOR signaling pathway 亮氨酸和组氨酸通过 mTOR 信号通路调控奶牛腺上皮细胞中酪蛋白的合成." *Journal of Zhejiang University-SCIENCE B* 16.6 (2015): 560-572.



Western Blot analysis of various cells using 4E-BP1 Polyclonal Antibody diluted at 1:500



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using 4E-BP1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HeLa and COLO205 cells, treated with EGF 200ng/ml 5', using 4E-BP1 Antibody. The lane on the right is blocked with the synthesized peptide.