



Rabbit Anti-phospho-EIF4EBP1 (Ser111) antibody

SL5337R

Product Name:	phospho-EIF4EBP1 (Ser111)
Chinese Name:	磷酸化eIF4EBinding protein抗体
Alias:	eIF4EBP1 (phospho S111); eIF4EBP1 (phospho Ser111); p-eIF4EBP1 (Ser111); eIF4EBP1; Eukaryotic translation initiation factor 4E binding protein 1; Eukaryotic translation initiation factor 4E-binding protein 1; 4E BP1; 4EBP1; BP 1; BP1; eIF4E binding protein 1; eIF4E-binding protein 1; Eukaryotic translation initiation factor 4E binding protein 1; MGC4316; PHAS I; PHASI; PHAS-I; PHAS; 4E-BP1; Phosphorylated heat- and acid-stable protein regulated by insulin 1; Phosphorylated heat and acid stable protein regulated by insulin 1; 4EBP1 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	13kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human 4EBP1 around the phosphorylation site of Ser111:EE(p-S)QF
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:[PubMed](#)

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 and mTORC1 pathways.

Subunit:

Nonphosphorylated EIF4EBP1 competes with EIF4G1/EIF4G3 to interact with EIF4E; insulin stimulated MAP-kinase (MAPK1 and MAPK3) or mTORC1 phosphorylation of EIF4EBP1 causes dissociation of the complex allowing EIF4G1/EIF4G3 to bind and consequent initiation of translation. Interacts with RPTOR.

Post-translational modifications:

Phosphorylated on serine and threonine residues in response to insulin, EGF and PDGF. Phosphorylation at Thr-37, Thr-46, Ser-65 and Thr-70 is regulated by mTORC1.

Product Detail:**Similarity:**

Belongs to the eIF4E-binding protein family.

SWISS:

Q13541

Gene ID:

1978

Database links:

[Entrez Gene: 1978](#) Human

[Entrez Gene: 13685](#) Mouse

[Entrez Gene: 116636](#) Rat

[Omim: 602223](#) Human

[SwissProt: Q13541](#) Human

[SwissProt: Q60876](#) Mouse

[SwissProt: Q62622](#) Rat

[Unigene: 411641](#) Human

[Unigene: 6700](#) Mouse

[Unigene: 11161](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

4E-BP1是一种分子量为10-12kDa 的酸性蛋白, 与eIF4G 竞争结合。4E-BPs 对 eIF4E 的结合是可逆的, 并依赖于 4E-BP 的磷酸化状态。非磷酸化的4E-BP1 能与 eIF4E 牢固结合, 而磷酸化的4E-BP1则不能。而一些蛋白激酶Akt、TOR、MAPK、S6激酶和Cdc2是已知的能通过对35、45、69位的苏氨酸残基或64位的丝氨酸残基进行磷酸化而使4E-BP1丧失对eIF4E结合能力的激酶。然而, 并非所有的磷酸化事件都能同样地阻断4E-BP1-eIF4E的相互作用。