

# EIF4EBP1 Antibody (T69)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1981c

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">Q13541</a>
<b>Other Accession</b>	<a href="#">Q0P5A7</a> , <a href="#">NP_004086</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB11407
<b>Calculated MW</b>	12580
<b>Antigen Region</b>	48-77

## Additional Information

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<b>Gene ID</b>	1978
<b>Other Names</b>	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, EIF4EBP1
<b>Target/Specificity</b>	This EIF4EBP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 48-77 amino acids from human EIF4EBP1.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	EIF4EBP1 Antibody (T69) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	EIF4EBP1
<b>Function</b>	Repressor of translation initiation that regulates EIF4E activity by preventing

its assembly into the eIF4F complex: hypophosphorylated form competes with EIF4G1/EIF4G3 and strongly binds to EIF4E, leading to repress translation. In contrast, hyperphosphorylated form dissociates from EIF4E, allowing interaction between EIF4G1/EIF4G3 and EIF4E, leading to initiation of translation. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways.

#### Cellular Location

Cytoplasm. Nucleus. Note=Localization to the nucleus is unaffected by phosphorylation status. {ECO:0000250 | UniProtKB:Q60876}

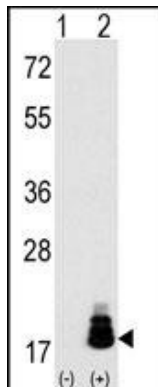
## Background

EIF4EBP1 is one member of a family of translation repressor proteins. It 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.

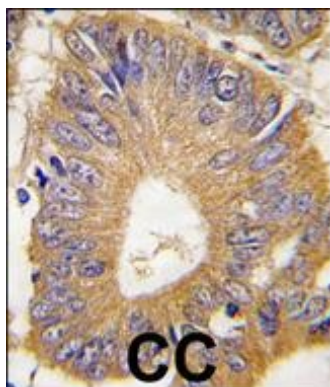
## References

Fonseca,B.D., J. Biol. Chem. 282 (34), 24514-24524 (2007)  
Armengol,G., Cancer Res. 67 (16), 7551-7555 (2007)

## Images



Western blot analysis of EIF4EBP1 (arrow) using rabbit polyclonal EIF4EBP1 Antibody (T69) (RB11407). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the EIF4EBP1 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human colon carcinoma tissue reacted with EIF4EBP1 Antibody (T69) (Cat.#AP1981c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.