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EIF4EBP1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1938b

Product Information

Application	WB, E
Primary Accession	Q13541
Other Accession	NP_004086.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Clone Names	319CT22.8.2
Calculated MW	12580

Additional Information

Gene ID	1978
Other Names	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
Target/Specificity	This EIF4EBP1 monoclonal antibody is generated from mouse immunized with EIF4EBP1 recombinant protein.
Dilution	WB~~1:500~1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	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.
Precautions	EIF4EBP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EIF4EBP1
Function	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}

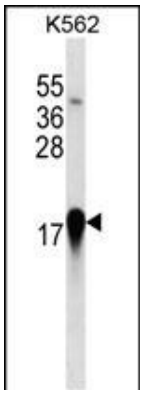
Background

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].

References

She, Q.B., et al. Cancer Cell 18(1):39-51(2010)
Aoyagi, M., et al. Proc. Natl. Acad. Sci. U.S.A. 107(6):2640-2645(2010)
Naukkarinen, J., et al. PLoS Genet. 6 (6), E1000976 (2010) :
Kumar, A., et al. PLoS ONE 5 (1), E8730 (2010) :
Villalonga, P., et al. J. Biol. Chem. 284(51):35287-35296(2009)

Images



EIF4EBP1 Antibody (Cat. #AM1938b) western blot analysis in K562 cell line lysates (35µg/lane).This demonstrates the EIF4EBP1 antibody detected the EIF4EBP1 protein (arrow).

Citations

- 20(s)-Protopanaxadiol (PPD) increases the radiotherapy sensitivity of laryngeal carcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.