10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EIF4EBP2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19950b

Product Information

Application	WB, E
Primary Accession	Q13542
Other Accession	NP_004087.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41859
Calculated MW	12939
Antigen Region	87-115

Additional Information

Gene ID	1979
Other Names	Eukaryotic translation initiation factor 4E-binding protein 2, 4E-BP2, eIF4E-binding protein 2, EIF4EBP2
Target/Specificity	This EIF4EBP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 87-115 amino acids from the C-terminal region of human EIF4EBP2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	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.
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	EIF4EBP2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EIF4EBP2 (HGNC:3289)
Function	Repressor of translation initiation involved in synaptic plasticity, learning and memory formation (PubMed:30765518). Regulates EIF4E activity by preventing its assembly into the eIF4F complex: hypophosphorylated form of

	EIF4EBP2 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 (PubMed:25533957, PubMed:30765518). EIF4EBP2 is enriched in brain and acts as a regulator of synapse activity and neuronal stem cell renewal via its ability to repress translation initiation (By similarity). Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways (By similarity).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P70445}. Nucleus {ECO:0000250|UniProtKB:P70445}

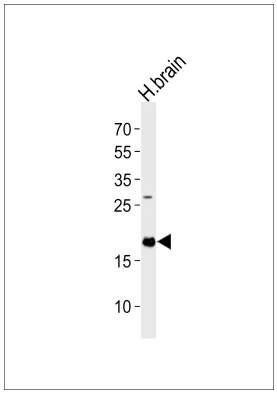
Background

This gene encodes a member of the eukaryotic translation initiation factor 4E binding protein family. The gene products of this family bind eIF4E and inhibit translation initiation. However, insulin and other growth factors can release this inhibition via a phosphorylation-dependent disruption of their binding to eIF4E. Regulation of protein production through these gene products have been implicated in cell proliferation, cell differentiation and viral infection.

References

Bailey, S.D., et al. Diabetes Care (2010) In press :
Bidinosti, M., et al. J. Biol. Chem. 285(25):19402-19408(2010)
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Gingras, A.C., et al. Virology 237(1):182-186(1997)

Images



Western blot analysis of lysate from human brain tissue lysate, using EIF4EBP2 Antibody (C-term)(Cat. #AP19950b). AP19950b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.