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4E-BP2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52865

Product Information

Application	WB
Primary Accession	Q13542
Reactivity	Transfected
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	12939

Additional Information

Gene ID	1979
Other Names	4E-BP2 ; 4EBP2 ; 4EBP2_HUMAN ; eIF4E binding protein 2 ; eIF4E-binding protein 2 ; Eif4ebp2 ; Eukaryotic translation initiation factor 4E binding protein 1 ; Eukaryotic translation initiation factor 4E-binding protein 2 ; PHASII ; phosphorylated, heat and acid stable regulated by insulin protein II.
Dilution	WB~~1:1000
Format	Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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). Cytoplasm {ECO:0000250|UniProtKB:P70445}. Nucleus

Cellular Location {ECO:0000250|UniProtKB:P70445}

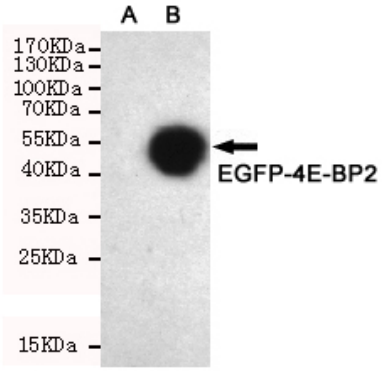
Background

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.

References

Pause A.,et al.Nature 371:762-767(1994).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).
Gauci S.,et al.Anal. Chem. 81:4493-4501(2009).
Mayya V.,et al.Sci. Signal. 2:RA46-RA46(2009).

Images



Western blot detection of 4E-BP2 in CHO-K1 cell lysate(A)and CHO-K1 transfected by EGFP-4E-BP2 (B)cell lysate using 4E-BP2 mouse mAb (1:1000 diluted).