

4E-BP2 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52865

Specification

4E-BP2 Antibody - Product Information

Application	WB
Primary Accession	O13542
Reactivity	Transfected
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	15-20 KDa

4E-BP2 Antibody - 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

4E-BP2 Antibody - 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

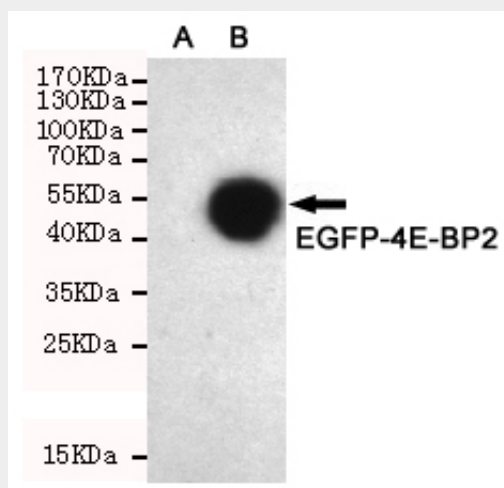
Cytoplasm {ECO:0000250|UniProtKB:P70445}. Nucleus {ECO:0000250|UniProtKB:P70445}

4E-BP2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

4E-BP2 Antibody - 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).

4E-BP2 Antibody - 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.

4E-BP2 Antibody - References

- Pause A., et al. Nature 371:762-767(1994).
Kalnina 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).