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

EIF4EBP1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1938b

Specification

EIF4EBP1 Antibody - Product Information

Application	**WB,E**
Primary Accession	Q13541
Other Accession	NP_004086.1
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,k**
Calculated MW	**12580**

EIF4EBP1 Antibody - 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

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.

EIF4EBP1 Antibody - 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.

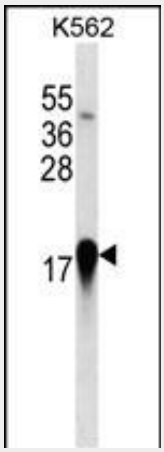
Cellular Location
Cytoplasm. Nucleus. Note=Localization to the nucleus is unaffected by phosphorylation status. {ECO:0000250|UniProtKB:Q60876}

EIF4EBP1 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 Cytomety
- Cell Culture

EIF4EBP1 Antibody - 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).

EIF4EBP1 Antibody - 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].

EIF4EBP1 Antibody - 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)

EIF4EBP1 Antibody - Citations

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