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EIF4E2 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1898b

Product Information

Application	WB, E
Primary Accession	O60573
Other Accession	NP_004837.1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,K
Clone Names	225CT3.1.3
Calculated MW	28362

Additional Information

Gene ID	9470
Other Names	Eukaryotic translation initiation factor 4E type 2, eIF-4E type 2, eIF4E type 2, Eukaryotic translation initiation factor 4E homologous protein, Eukaryotic translation initiation factor 4E-like 3, eIF4E-like protein 4E-LP, mRNA cap-binding protein 4EHP, mRNA cap-binding protein type 3, EIF4E2, EIF4EL3
Target/Specificity	This EIF4E2 monoclonal antibody is generated from mouse immunized with EIF4E2 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	EIF4E2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EIF4E2 {ECO:0000303|PubMed:15153109, ECO:0000312|HGNC:HGNC:3293}
Function	Recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation. Acts as a repressor of translation initiation (PubMed:17368478, PubMed:22751931, PubMed:25624349,

PubMed:33581076, PubMed:9582349). In contrast to EIF4E, it is unable to bind eIF4G (EIF4G1, EIF4G2 or EIF4G3), suggesting that it acts by competing with EIF4E and block assembly of eIF4F at the cap (By similarity). In P-bodies, component of a complex that promotes miRNA-mediated translational repression (PubMed:28487484). Involved in virus-induced host response by mediating miRNA MIR34A-induced translational silencing which controls IFNB1 production by a negative feedback mechanism (PubMed:28487484, PubMed:33581076).

Cellular Location Cytoplasm. Cytoplasm, P-body

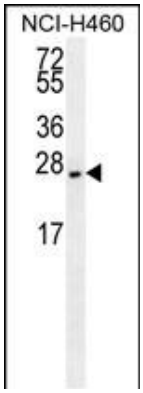
Background

EIF4E2 recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation of protein synthesis and facilitates ribosome binding by inducing the unwinding of the mRNAs secondary structures.

References

Rose, J. Phd, et al. Mol. Med. (2010) In press :
Venkatesan, K., et al. Nat. Methods 6(1):83-90(2009)
Rosettani, P., et al. J. Mol. Biol. 368(3):691-705(2007)
Zuberek, J., et al. RNA 13(5):691-697(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :

Images



EIF4E2/MB10227 antibody (Cat. #AM1898b) western blot analysis in NCI-H460 cell line lysates (35µg/lane).This demonstrates the EIF4E2/MB10227 antibody detected the EIF4E2/MB10227 protein (arrow).