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EIF4E2 Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1955d

Product Information

Application	WB, IHC-P, E
Primary Accession	O60573
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22944
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 antibody is generated from rabbits immunized with human EIF4E2 recombinant protein.
Dilution	WB~~1:2000 IHC-P~~1:100~500 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	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

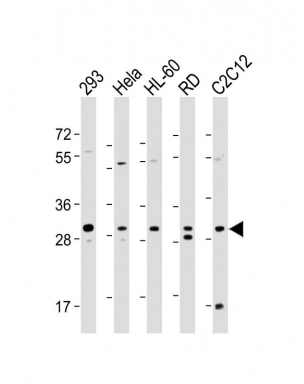
Background

EIF4E2 is expressed exclusively in the cytoplasm. This protein 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.

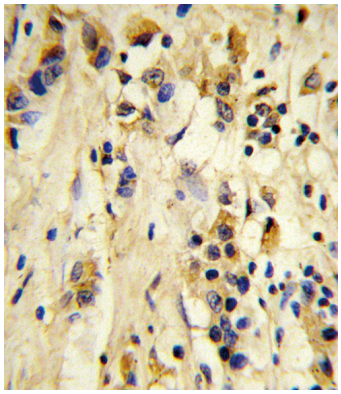
References

Rom, E., et al., J. Biol. Chem. 273(21):13104-13109 (1998).
Mao, M., et al., Proc. Natl. Acad. Sci. U.S.A. 95(14):8175-8180 (1998).
Tee, A.R., et al., FEBS Lett. 564 (1-2), 58-62 (2004) (): ().

Images



All lanes : Anti-EIF4E2 Antibody at 1:2000 dilution Lane 1: 293 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: HL-60 whole cell lysate Lane 4: RD whole cell lysate Lane 5: C2C12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 28, 27 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with EIF4E2 Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.