

## EIF4E2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1955a

## Specification

# EIF4E2 Antibody (N-term) - Product Information

Application Primary Accession	WB, IHC-P,E <u>060573</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	28362
Antigen Region	12-41

# EIF4E2 Antibody (N-term) - 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 a KLH conjugated synthetic peptide between 12-41 amino acids from the N-terminal region of human EIF4E2.

**Dilution** WB~~1:1000 IHC-P~~1:50~100 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## EIF4E2 Antibody (N-term) - 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:<u>17368478</u>, PubMed:<u>22751931</u>, PubMed:<u>25624349</u>, PubMed:<u>33581076</u>, PubMed:<u>9582349</u>). 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:<u>28487484</u>). Involved in virus-induced host response by mediating miRNA MIR34A-induced translational silencing which controls IFNB1 production by a negative feedback mechanism (PubMed:<u>28487484</u>, PubMed:<u>33581076</u>).

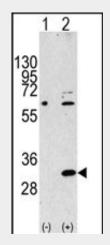
Cellular Location Cytoplasm. Cytoplasm, P-body

# EIF4E2 Antibody (N-term) - Protocols

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

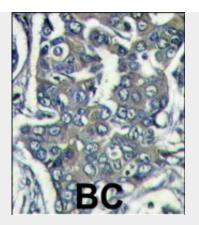
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# EIF4E2 Antibody (N-term) - Images



Western blot analysis of EIF4E2 Antibody (N-term) polyclonal antibody(Cat.#AP1955a)(arrow). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the EIF4E2 gene (Lane 2) (Origene Technologies).





Formalin-fixed and paraffin-embedded human breast carcinoma reacted with EIF4E2 Antibody (N-term)(Cat.#AP1955a), 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.

# EIF4E2 Antibody (N-term) - 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.

# EIF4E2 Antibody (N-term) - 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) (): ().