

EIF4E Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1954B

Specification

EIF4E Antibody - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P06730
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	25097

EIF4E Antibody - Additional Information

Gene ID 1977

Other Names

Eukaryotic translation initiation factor 4E, eIF-4E, eIF-4E, eIF-4F 25 kDa subunit, mRNA cap-binding protein, EIF4E, EIF4EL1, EIF4F

Target/Specificity

This EIF4E antibody is generated from rabbits immunized with a recombinant protein from human VGFR2.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

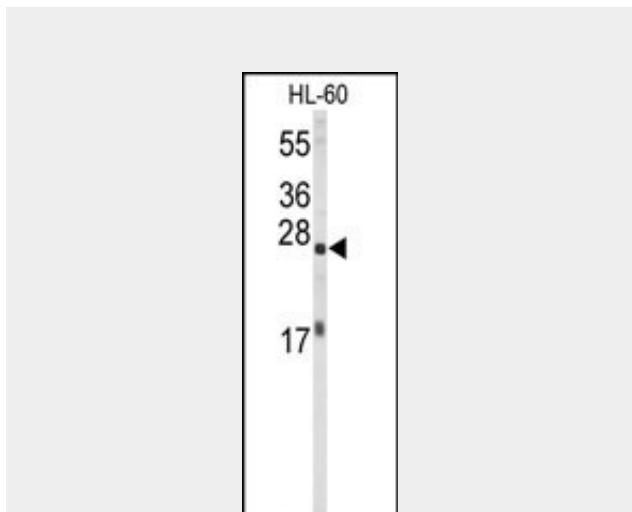
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

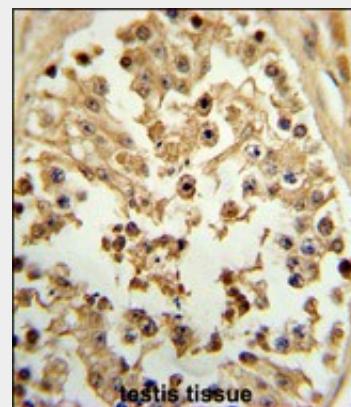
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

EIF4E Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Western blot analysis of EIF4E Antibody (Cat. #AP1954b) in HL-60 cell line lysates (35ug/lane). EIF4E (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human testis tissue reacted with EIF4E Antibody (Cat. #AP1954b), 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.

EIF4E Antibody - Protein Information

Name EIF4E ([HGNC:3287](#))

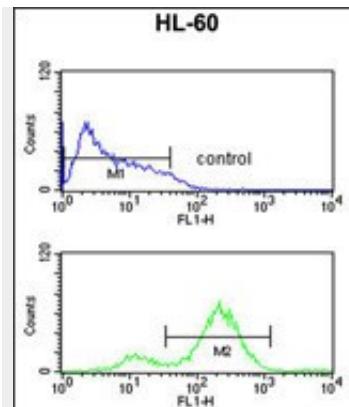
Synonyms EIF4EL1, EIF4F

Function

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 (PubMed:16271312, PubMed:22578813). In addition to its role in translation initiation, also acts as a regulator of translation and stability in the cytoplasm (PubMed:24335285). Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression: in the complex, EIF4E mediates the binding to the mRNA cap (By similarity). Component of a multiprotein complex that sequesters and represses translation of proneurogenic factors during neurogenesis (By similarity). In P-bodies, component of a complex that mediates the storage of translationally inactive mRNAs in the cytoplasm and prevents their degradation (PubMed:24335285). May play an important role in spermatogenesis through translational regulation of stage-specific mRNAs during germ cell development (By similarity).

Cellular Location

Cytoplasm, P-body. Cytoplasm. Cytoplasm, Stress granule. Nucleus Note=Interaction with EIF4ENIF1/4E-T is required for localization to processing bodies (P-bodies) (PubMed:16157702, PubMed:24335285, PubMed:25923732). Imported in the nucleus via interaction with EIF4ENIF1/4E-T via a piggy-back mechanism (PubMed:10856257)



EIF4E Antibody (Cat. #AP1954b) flow cytometric analysis of HL-60 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

EIF4E Antibody - Background

EIF4E is a eukaryotic translation initiation factor involved in directing ribosomes to the cap structure of mRNAs. It is a 24-kD polypeptide that exists as both a free form and as part of a multiprotein complex termed EIF4F. The EIF4E polypeptide is the rate-limiting component of the eukaryotic translation apparatus and is involved in the mRNA-ribosome binding step of eukaryotic protein synthesis. The other subunits of EIF4F are a 50-kD polypeptide, termed EIF4A (see MIM 601102), that possesses ATPase and RNA helicase activities, and a 220-kD polypeptide, EIF4G.

EIF4E Antibody - References

Kim,S., et.al., J. Virol. 84 (1), 52-58 (2010)
Kao,C.L., et.al., Cancer Lett. 286 (2), 250-259 (2009)

EIF4E 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](#)