

Rabbit eIF4E Polyclonal Antibody | anti-eIF4E antibody

Phospho-eIF4E (Thr55) Antibody

CATALOG # AAA329298	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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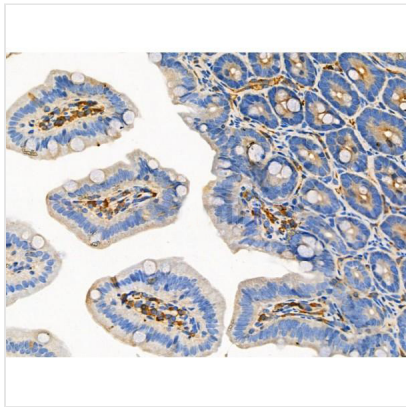
PRODUCT SYNONYMS

eIF4E; Polyclonal Antibody; Phospho-eIF4E (Thr55) Antibody; AUTS19; CBP; eIF 4E; eIF 4F 25kDa subunit; EIF 4F; eIF-4E; eIF-4F 25kDa subunit; EIF4E1; EIF4EL1; EIF4F; Eukaryotic translation initiation factor 4 E; Eukaryotic translation initiation factor 4E; Eukaryotic translation initiation factor 4E like 1; IF4E_HUMAN; Messenger RNA Cap Binding Protein eIF 4E; MGC111573; mRNA cap binding protein; mRNA cap-binding protein; anti-eIF4E antibody

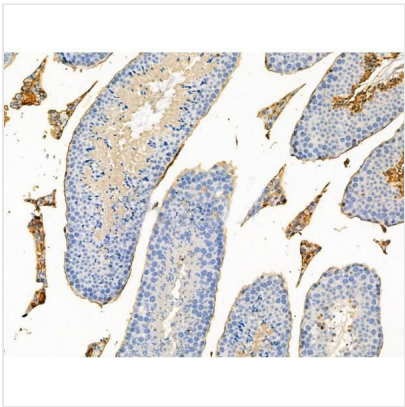
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-eIF4E (Thr55) Antibody detects endogenous levels of eIF4E only when phosphorylated at Thr55.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-eIF4E antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human eIF4E around the phosphorylation site of Thr55.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation increases the ability of the protein to bind to mRNA caps and to form the eIF4F complex.
Subunit Structure	eIF4F is a multi-subunit complex, the composition of which varies with external and internal environmental conditions. It is composed of at least EIF4A, EIF4E and EIF4G1/EIF4G3. EIF4E is also known to interact with other partners. The interaction with EIF4ENIF1 mediates the import into the nucleus. Hypophosphorylated EIF4EBP1, EIF4EBP2 and EIF4EBP3 compete with EIF4G1/EIF4G3 to interact with EIF4E; insulin stimulated MAP-kinase (MAPK1 and MAPK3) phosphorylation of EIF4EBP1 causes dissociation of the complex allowing EIF4G1/EIF4G3 to bind and consequent initiation of translation. Rapamycin can attenuate insulin stimulation, mediated by FKBP. Interacts mutually exclusive with EIF4A1 or EIF4A2. Interacts with NGDN and PIWIL2. Component of the CYFIP1-EIF4E-FMR1 complex composed of CYFIP, EIF4E and FMR1. Interacts directly with CYFIP1. Interacts with CLOCK (By similarity). Binds to MKNK2 in nucleus. Interacts with LIMD1, WTIP and AJUBA. Interacts with APOBEC3G in an RNA-dependent manner. Interacts with LARP1. Interacts with METTL3. Interacts with RBM24; this interaction prevents EIF4E from binding to p53/TP53 mRNA and inhibits the assembly of translation initiation complex. (Microbial infection) Interacts with Lassa virus Z protein.
Similarity	Belongs to the eukaryotic initiation factor 4E family.
Subcellular Location	Cytoplasm>P-body. Cytoplasm.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
Staining Mouse colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-eIF4E antibody	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. Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression. In the CYFIP1-EIF4E-FMR1 complex this subunit mediates the binding to the mRNA cap.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	194578907
NCBI GeneID	1977
NCBI Accession #	NP_001124150.1
NCBI GenBank Nucleotide #	NM_001130678.1
UniProt Accession #	P06730; Q96E95; B7Z6V1; D6RCQ6
Molecular Weight	25,097 Da
NCBI Official Full Name	eukaryotic translation initiation factor 4E isoform 3
NCBI Official Synonym Full Names	eukaryotic translation initiation factor 4E
NCBI Official Symbol	EIF4E
NCBI Official Synonym Symbols	CBP; EIF4F; AUTS19; EIF4E1; EIF4EL1
NCBI Protein Information	eukaryotic translation initiation factor 4E; eIF-4E; eIF-4F 25 kDa subunit; mRNA cap-binding protein; eukaryotic translation initiation factor 4E-like 1
UniProt Protein Name	Eukaryotic translation initiation factor 4E
UniProt Gene Name	EIF4E
UniProt Synonym Gene Names	EIF4EL1; EIF4F; eIF-4E; eIF4E
UniProt Entry Name	IF4E_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.