Best Tools for immunology Research

eIF4E Monoclonal Antibody

Catalog No :	YM0214
Reactivity :	Human
Applications :	WB;IHC;IF;FCM;ELISA
Target :	eIF4E
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>HIF-1 signaling pathway;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>Longevity regulating pathway;>>Insulin signaling pathway
Gene Name :	EIF4E
Protein Name :	Eukaryotic translation initiation factor 4E
Human Gene Id :	1977
Human Swiss Prot No :	P06730
Mouse Swiss Prot No :	P63073
Immunogen :	Purified recombinant fragment of human eIF4E expressed in E. Coli.
Specificity :	eIF4E Monoclonal Antibody detects endogenous levels of eIF4E protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	25kD

Cell Pathway : mTOR;Insulin_Receptor;

P References :
1. Ann Surg Oncol. 2008 Nov;15(11):3207-15.
2. J Biol Chem. 2008 Sep 12;283(37):25227-37.

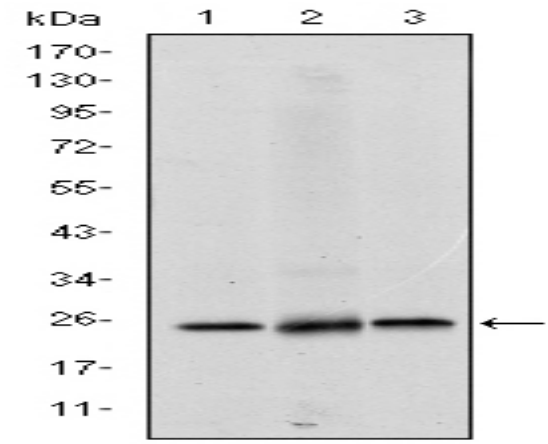
Background : The protein encoded by this gene is a component of the eukaryotic translation initiation factor 4F complex, which recognizes the 7-methylguanosine cap structure at the 5' end of messenger RNAs. The encoded protein aids in translation initiation by recruiting ribosomes to the 5'-cap structure. Association of this protein with the 4F complex is the rate-limiting step in translation initiation. This gene acts as a proto-oncogene, and its expression and activation is associated with transformation and tumorigenesis. Several pseudogenes of this gene are found on other chromosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015],

Function : caution:Was originally thought to be phosphorylated on Ser-53 (PubMed:3112145); this was later shown to be wrong (PubMed:7665584).,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.,PTM:Phosphorylation increases the ability of the protein to bind to mRNA caps and to form the eIF4F complex.,similarity:Belongs to the eukaryotic initiation factor 4E family.,subunit: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. Nonphosphorylated EIF4EBP1, EIF4EBP2 and EIF4EBP3 compete wi

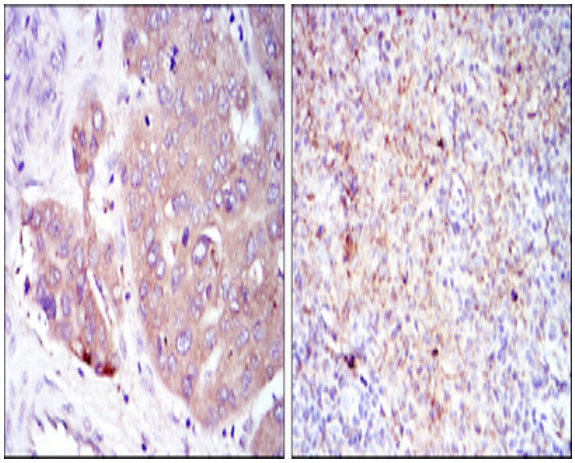
Subcellular Location : Cytoplasm, P-body . Cytoplasm . Cytoplasm, Stress granule . Nucleus . Interaction with EIF4ENIF1/4E-T is required for localization to processing bodies (P-bodies) (PubMed:16157702, PubMed:24335285, PubMed:25923732). Imported in the nucleus via interaction with EIF4ENIF1/4E-T via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

Expression : Brain,Fetal brain,Placenta,Pooled,Small intestine,Testis,

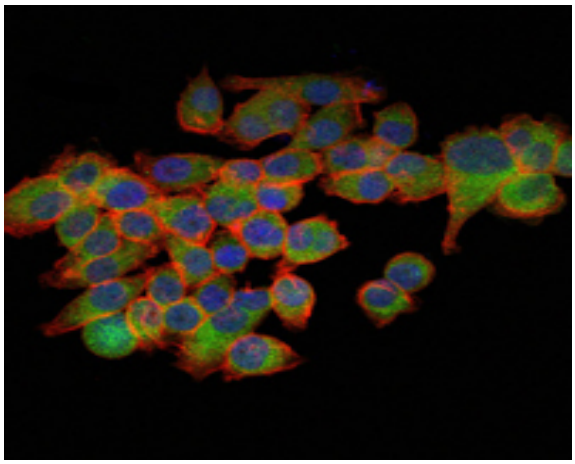
Products Images



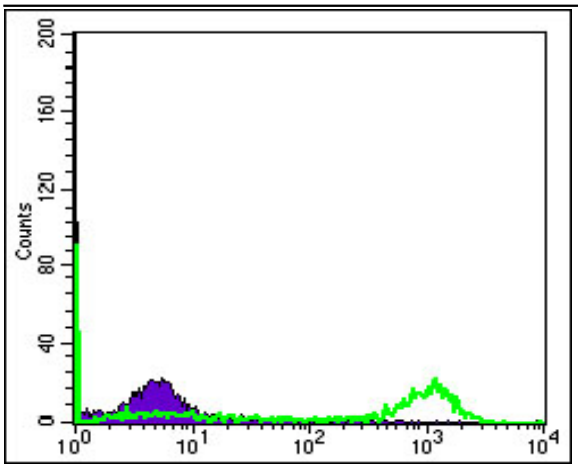
Western Blot analysis using eIF4E Monoclonal Antibody against HeLa (1), HEK293 (2) and K562 (3) cell lysate.



Immunohistochemistry analysis of paraffin-embedded liver cancer (left) and submaxillary tumor (right) with DAB staining using eIF4E Monoclonal Antibody.



Immunofluorescence analysis of GC-7901 cells using eIF4E Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of Hela cells using eIF4E Monoclonal Antibody (green) and negative control (purple).