# eIF4E Monoclonal Antibody

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| **Catalog No** | BYab-03394 |
| **Isotype** | IgG |
| **Reactivity** | Human |
| **Applications** | WB;IHC;IF;FCM;ELISA |
| **Gene Name** | EIF4E |
| **Protein Name** | Eukaryotic translation initiation factor 4E |
| **Immunogen** | Purified recombinant fragment of human eIF4E expressed in E. Coli. |
| **Specificity** | eIF4E Monoclonal Antibody detects endogenous levels of eIF4E protein. |
| **Formulation** | Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol. |
| **Source** | Monoclonal, Mouse |
| **Purification** | Affinity purification |
| **Dilution** | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications. |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | EIF4E; EIF4EL1; EIF4F; Eukaryotic translation initiation factor 4E; eIF-4E; eIF4E; eIF-4F 25 kDa subunit; mRNA cap-binding protein |
| **Observed Band** | |
| **Cell Pathway** | 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). . |
| **Tissue Specificity** | Brain,Fetal brain,Placenta,Pooled,Small intestine,Testis, |
| **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 |

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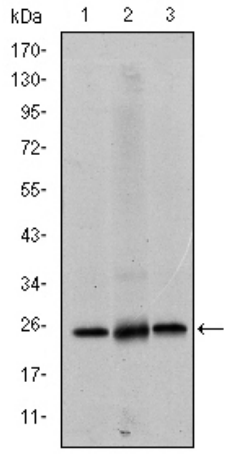
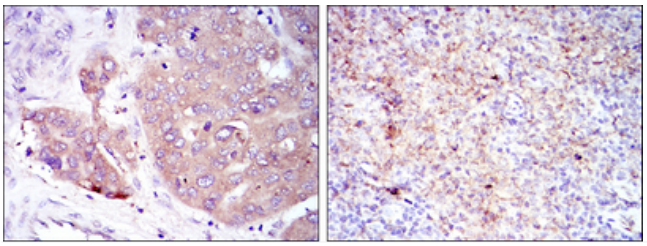
| | family.,subunit:eIF4F is a multi-subunit complex, the composition of which varies with external and internal environmental conditions. It is composed of at least EIF4A, EIF4E and EIF4G1/EIF4G3. EIF4E is also known to interact with other partners. The interaction with EIF4ENIF1 mediates the import into the nucleus. Nonphosphorylated EIF4EBP1, EIF4EBP2 and EIF4EBP3 compete wi |
| **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], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

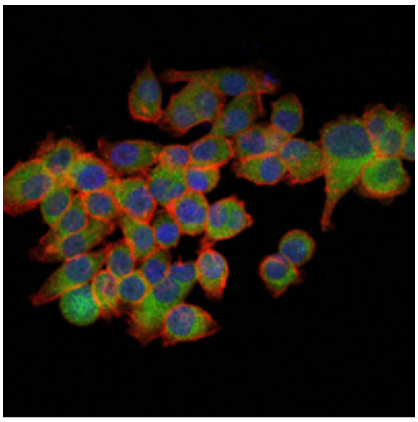
## Products Images



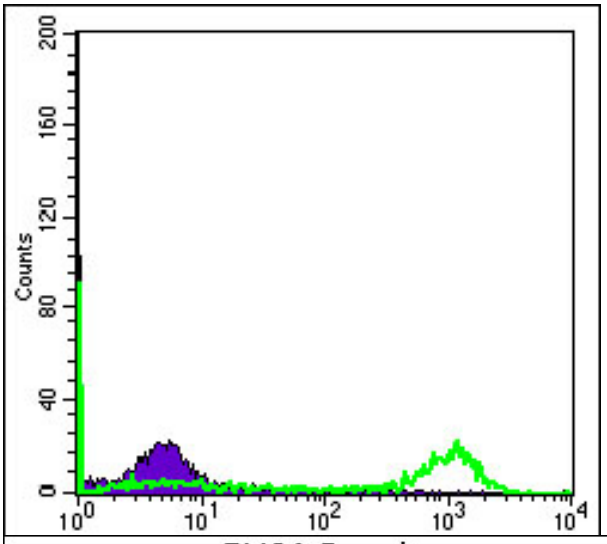

Western Blot analysis using eIF4E Monoclonal Antibody against HeLa (1), HEK293 (2) and K562 (3) cell lysate.



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).