



## Rabbit Anti-eIF4E/FITC Conjugated antibody

SL4979R-FITC

<b>Product Name:</b>	Anti-eIF4E/FITC
<b>Chinese Name:</b>	FITC标记的真核翻译起始因子4E抗体
<b>Alias:</b>	EIF4F; eIF-4E; eIF 4E; CBP; eIF 4F 25 kDa subunit; CBP; eIF 4E; eIF 4F 25 kDa subunit; EIF 4F; EIF4E1; EIF4EL1; EIF4F; Eukaryotic Translation Initiation Factor 4 E; Eukaryotic translation initiation factor 4E like 1; Messenger RNA Cap Binding Protein eIF 4E.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,
<b>Applications:</b>	ICC=1:50-200IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	24kDa
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human eIF4E
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>Product Detail:</b>	<b>background:</b> eIF4E, a protein modulates translation of maternal mRNAs in early embryos before the onset of zygotic transcription. eIF4E also influences the overall rate of translation. eIF4E binds to the 7 methyl GTP cap structure of eukaryotic mRNAs. Phosphorylation of eIF4E on serine 209 regulates the affinity of this protein for the 7 methyl GTP cap and/or RNA. Phosphorylation also enhances the interaction of eIF4E with eIF4G, which form a complex known as eIF4F. eIF4E phosphorylation is correlated with increased

translational rate in a number of cell types. Several kinases are currently being investigated as potential regulators of eIF4E including PKC and/or the MAP kinase activated Mnk.

**Function:**

Its translation stimulation activity is repressed by binding to the complex CYFIP1-FMR1 (By similarity). 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.

**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 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 (By similarity). Interacts with Lassa virus Z protein. Binds to MKNK2 in nucleus. Interacts with LIMD1, WTIP and AJUBA.

**Subcellular Location:**

Cytoplasm, P-body.

**Post-translational modifications:**

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.

**Database links:**

[Entrez Gene: 1977](#)Human

[Entrez Gene: 13684](#)Mouse

[Entrez Gene: 117045](#)Rat

[Omim: 133440](#)Human

[SwissProt: P06730](#)Human

[SwissProt: P63073](#)Mouse

[SwissProt: P63074](#)Rat

[Unigene: 249718](#)Human

[Unigene: 3941](#)Mouse

[Unigene: 11275](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**核细胞翻译起始因子4E-**

EIF4E是蛋白合成的一个主要调控因子, 它表达量增加会促进多种Tumour的生长  
的增值、分化, 因此EIF4E是一种非常重要的抗癌药物靶标。eIF-  
4E是一种涉及核糖体与mRNA帽子结构结合的真核生物翻译起始因子。它以2种形  
式存在: 游离形式(25kDa)和作为多蛋白复合物eIF-4F的一个组分。eIF-4E  
是数量最少的一种起始因子, 涉及翻译起始的限速步骤, 磷酸化调节蛋白质的生物  
合成。