Recombinant Human Eukaryotic Translation Initiation Factor 4E, GST-tagged

Cat. No. EIF4E-2373H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Eif4e (eukaryotic translation initiation factor 4E) (amino-acids 2-216) with N-terminal GST tag, was expressed in*E.Coli*expression system. MW= 51 kDa.
Species	Human
Source	E.coli
ProteinLength	2-216 a.a.
Description	Protein synthesis initiation factor 4E (eIF4E) is a mRNA Cap-binding protein involved in an early rate limiting step in the initiation of protein synthesis. eIF4E undergoes phosphorylation at Ser209 in response to growth factors and other extracellular stimuli. This reaction is thought to be catalyzed in cells by the mitogen-activated protein (MAP) kinase-interacting kinases (Mnk"s) and an insulin-stimulated cytosolic protamine kinase which is activated by members of the MAP kinase family. In addition, eIF4E undergoes phosphorylation at Thr210 following incubation with cPK. In cells, eIF4E occurs as a complex with inhibitory binding proteins (4EBP) and as part of the eIF4F complex which also contains eIF4A and eIF4G. In response to insulin and other extracellular stimuli, eIF4E is activated and recruited to the eIF4F complex following its dissociation from the inhibitory 4EBP. Over-expression of eIF4E leads to cell transformation and tumorigenesis.

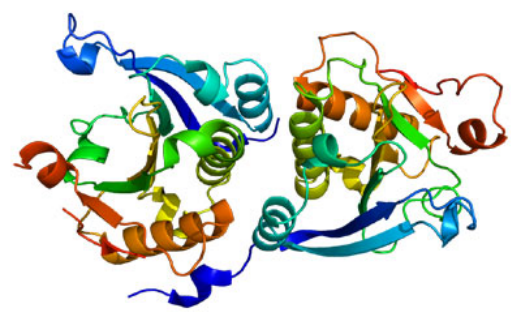
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Formulated In	50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 50% glycerol.
Application	Suitable substrate for MNK1 kinase.
Stability	>12 months at –80°C.
Pathways	Insulin signaling pathway; mTOR signaling pathway; Gene Expression; Metabolism of RNA; Metabolism of proteins; Signaling by Insulin receptor

GENE INFORMATION

Gene Name	EIF4E eukaryotic translation initiation factor 4E [Homo sapiens]
Synonyms	eukaryotic translation initiation factor 4E; CBP; EIF4F; EIF4E1; EIF4EL1; MGC111573; EIF4E; eIF-4E; eIF-4F 25 kDa subunit; mRNA cap-binding protein; eukaryotic translation initiation factor 4E-like 1; eIF4E
Gene ID	1977
mRNA Refseq	NM_001130678
Protein Refseq	NP_001124150
MIM	133440
UniProt ID	P06730
Chromosome Location	4q21-q25

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Function	translation initiation factor activity; protein binding; RNA cap binding
PDB rendering based on 1ej1.	

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