

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

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

## SPECIFICATION

<b>Product Overview</b>	Recombinant human Eif4e (eukaryotic translation initiation factor 4E) (amino-acids 2-216) with N-terminal GST tag, was expressed in <i>E. Coli</i> expression system. MW= 51 kDa.
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<b>Species</b>	Human
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<b>Source</b>	E.coli
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<b>ProteinLength</b>	2-216 a.a.
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<b>Description</b>	<p>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.</p>
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<b>Formulated In</b>	50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 50% glycerol.
<b>Application</b>	Suitable substrate for MNK1 kinase.
<b>Stability</b>	>12 months at -80°C.
<b>Pathways</b>	Insulin signaling pathway; mTOR signaling pathway; Gene Expression; Metabolism of RNA; Metabolism of proteins; Signaling by Insulin receptor

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">EIF4E eukaryotic translation initiation factor 4E [ Homo sapiens ]</a>
<b>Synonyms</b>	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
<b>Gene ID</b>	<a href="#">1977</a>
<b>mRNA Refseq</b>	<a href="#">NM_001130678</a>
<b>Protein Refseq</b>	<a href="#">NP_001124150</a>
<b>MIM</b>	<a href="#">133440</a>
<b>UniProt ID</b>	<a href="#">P06730</a>
<b>Chromosome Location</b>	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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