

Recombinant Human his-tag-EIF4E+EIF4G

(For Research Use Only)

Catalog number	12-0011
Synonym(s)	EIF4E1, EIF4EL1, CBP
Introduction	<p>Human EIF4E (GenBank Accession No. NM_001968) is a eukaryotic translation initiation factor involved in directing ribosomes to the cap structure of mRNAs.</p> <p>EIF4E is part of the EIF4F pre-initiation complex, which is made up of EIF4E, and EIF4G. Almost all cellular proteins require EIF4E in order to be translated into protein. EIF4E binds the first nucleotide on the 5' end of an mRNA molecule (known as the cap): a 7-Methylguanosine (m7G). It sandwiches m7G between 2 tryptophan residues, and other amino acids are involved in the binding.</p> <p>Human Recombinant EIF4E is expressed in E. Coli as a single, non-glycosylated polypeptide chain containing 237 amino acids, EIF4E (1-217 a.a.) with a N-terminal His-Tag.</p> <p>A fragment of 80 residues of EIF4G containing EIF4E binding domain is co-expressed with EIF4E. The binary complex is well purified by affinity, ion exchange and gel filtration chromatographic techniques.</p>
Amino Acid Sequences	<p>Full lenght EIF4E:</p> <p><u>MGSSHHHHHHSSGLVPRGSH</u>MATVEPETTPTPNPPTTEEEKTESNQEVAN PEHYIKHPLQNRWALWFFKNDKSKTWQANLRLISKFDTVEDFWALYNHIQ LSSNLMPGCDYSLFKDGIEPMWEDEKNKRGGRWLITLNKQQRSDLDRW LETLLCLIGESFDDYSDDVCGAVVNVRAKGDKIAIWTTECENREAVTHIGRV YKERLGLPPKIVIGYQSHADTATKSGSTTKNRFVV</p> <p>EIF4G fragment:</p> <p>MWDSKEDIHNAENIQPGEQKYEYKSDQWKPPNLEEKRYDREFLLGFQFI FASMQKPEGLPHISDVVLDKANKT</p>
Host species	<i>E. coli</i>
MW	EIF4E: 27.3KDa ; EIF4G: 9.0 KDa
Purity	>98%
Formulation	0.5 mg/ml eIF4E/eIF4G with 2mM DTT, 10% glycerol, 0.02% NaN ₃ , 150mM NaCl , 50mM Tris-HCl pH7.5.

Storage/stability	>12 months at -80 °C, stable for 2-4 weeks at 4°C, avoid multiple freeze-thaw cycles.
Application	It is great to use on binding assay, small molecule inhibitor screening, substrate of MNK1, 2 or other kinases.
Size	2 µg, 10 µg, 100µg, 1.0 mg

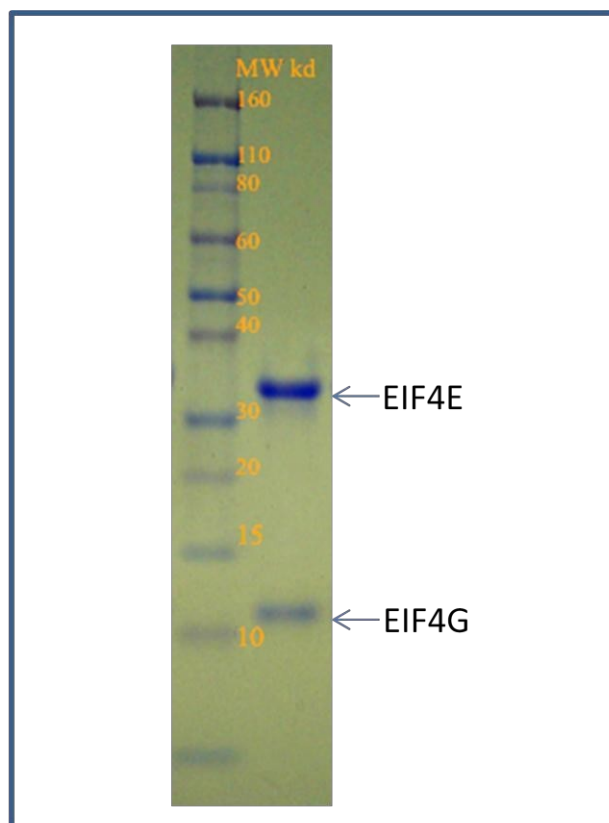


Figure 1: SDS Page of EIF4E/EIF4G.
The protein sample was purified by gel filtration.