

Datasheet for ABIN7548471
EIF4E2 Protein (AA 1-245) (His tag)



[Go to Product page](#)

Overview

| | |
|-------------------------------|---|
| Quantity: | 1 mg |
| Target: | EIF4E2 |
| Protein Characteristics: | AA 1-245 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This EIF4E2 protein is labelled with His tag. |

Product Details

| | |
|------------------|--|
| Purpose: | Custom-made recombinant EIF4E2 Protein expressed in mammalian cells. |
| Sequence: | <p>MNNKFDALKD DDSGDHDQNE ENSTQKDGEK EKTERDKNQS SSKRKAVVPG PAEHLQYNY TFWYSRRTPG RPTSSQSYEQ NIKQIGTFAS VEQFWRFYSH MVRPGDLTGH SDFHLFKEGI KPMWEDDANK NGGKWIIRLR KGLASRCWEN LILAMLGEQF MVGEEICGAV VSVRFQEDII SIWNKTASDQ ATTARIRDTL RRVLNLPNT IMEYKHTHTDS IKMPGRLGPQ RLLFQNLWKP RLNVV</p> <p>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p> |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | <p>Key Benefits:</p> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts. |

Product Details

- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

| | |
|---------|---|
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

Target Details

| | |
|-------------------|--|
| Target: | EIF4E2 |
| Alternative Name: | EIF4E2 (EIF4E2 Products) |
| Background: | <p>Eukaryotic translation initiation factor 4E type 2 (eIF-4E type 2) (eIF4E type 2) (Eukaryotic translation initiation factor 4E homologous protein) (Eukaryotic translation initiation factor 4E-like 3) (eIF4E-like protein 4E-LP) (mRNA cap-binding protein 4EHP) (h4EHP) (mRNA cap-binding protein type 3),FUNCTION: Recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation. Acts as a repressor of translation initiation (PubMed:17368478, PubMed:22751931, PubMed:25624349, PubMed:33581076, PubMed:9582349). In contrast to EIF4E, it is unable to bind eIF4G (EIF4G1, EIF4G2 or EIF4G3), suggesting that it acts by competing with EIF4E and block assembly of eIF4F at the cap (By similarity). In P-bodies, component of a complex that promotes miRNA-mediated translational repression (PubMed:28487484). Involved in virus-induced host response by mediating miRNA MIR34A-induced translational silencing which controls IFNB1 production by a negative feedback mechanism (PubMed:28487484, PubMed:33581076).</p> <p>{ECO:0000250 UniProtKB:Q8BMB3, ECO:0000269 PubMed:17368478, ECO:0000269 PubMed:22751931, ECO:0000269 PubMed:25624349, ECO:0000269 PubMed:28487484, ECO:0000269 PubMed:33581076,</p> |

Target Details

ECO:0000269|PubMed:9582349}, FUNCTION: Component of the 4EHP-GYF2 complex, a multiprotein complex that acts as a repressor of translation initiation (PubMed:22751931, PubMed:35878012). In association with GIGYF2, assists ribosome-associated quality control (RQC) by sequestering the mRNA cap, blocking ribosome initiation and decreasing the translational load on problematic messages. Part of a pathway that works in parallel to RQC-mediated degradation of the stalled nascent polypeptide. GIGYF2 and EIF4E2 work downstream and independently of ZNF598, which seems to work as a scaffold that can recruit them to faulty mRNA even if alternative recruitment mechanisms may exist (PubMed:32726578). {ECO:0000269|PubMed:22751931, ECO:0000269|PubMed:32726578, ECO:0000269|PubMed:35878012}, FUNCTION: (Microbial infection) Upon SARS coronavirus-2/SARS-CoV-2 infection, the interaction with non-structural protein 2 (nsp2) with GIGYF2 enhances GIGYF2 binding to EIF4E2 and increases repression of translation initiation of genes involved in antiviral innate immune response such as IFNB1. {ECO:0000269|PubMed:35878012}.

Molecular Weight: 28.4 kDa

UniProt: [O60573](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months