



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human EIF4E2 Protein
Catalog Number: hRP-0900
Manufacturer: LD Biopharma, Inc.

Introduction

Eukaryotic initiation factor 4E (eIF4E) has long been known as the cap-binding protein that participates in recruitment of mRNA to the ribosome. The 7-methylguanosine-containing “cap” plays an essential role at each stage of the mRNA “life cycle”: transcription, splicing, nuclear export, translation, translational repression, and degradation. This is mediated by specific cap-binding proteins, of which at least 10 have been discovered so far. The most widely studied and best understood of these cap-binding proteins is eIF4E, a 25kd cap-binding protein.

Full-length mature human EIF4E2 (245 aa) gene was constructed with 15 aa N-terminal T7 tag and expressed in E.coli as inclusion bodies, the final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: EIF4E2 (4E-LP; 4EHP; EIF4EL3; IF4e)
Accession Number: NP_004837
Species: Human
Size: 50 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Morita, M., et al., *A novel 4EHP-GIGYF2 translational repressor complex is essential for mammalian development.* Mol. Cell. Biol. 32 (17), 3585-3593 (2012)



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Rosettani,P., et al., *Structures of the human eIF4E homologous protein, h4EHP, in its m7GTP-bound and unliganded forms.* J. Mol. Biol. 368 (3), 691-705 (2007)

Applications

1. May be used for in vitro EIF4E2 mediated mRNA cap binding initiated protein translation regulation study with “ProFectin” based intracellular delivery of this protein.
2. As soluble / native protein, may be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping EIF4E2 protein-protein interaction.
4. May be used as antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFMNNKFDALKDDDSGDHDQNEENSTQKDGEKEKTERDKNQSSSKRKAVVP
GPAEHPLQYNYTFWYSRRTTPGRPTSSQS YEQNIKQIGTFASVEQFWRFYSHMVRPGDLTGHSDF
HLFKEGIKPMWEDDANKNGGKWI IRLRKGLASRCWENLILAMLGEQFMVGE EICGAVVSVRFQE
DIISIWNKTASDQATTARIRD TLRRLNLPPNTIMEYKTH TDSIKMPGRLGPQRLLFQNLWKPR
LNVP