LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human EIF6 Protein
Catalog Number: hRP-0849
Manufacturer: LD Biopharma, Inc.

Introduction

Hemidesmosomes are structures which link the basal lamina to the intermediate filament cytoskeleton. An important functional component of hemidesmosomes is the integrin beta-4 subunit (ITGB4), a protein containing two fibronectin type III domains. The protein encoded by human eukaryotic translation initiation factor 6 (EIF6) gene binds to the fibronectin type III domains of ITGB4 and may help link ITGB4 to the intermediate filament cytoskeleton. EIF6, which is insoluble and found both in the nucleus and in the cytoplasm, can function as a translation initiation factor and prevent the association of the 40S and 60S ribosomal subunits. Variants encoding two different isoforms have been found for this gene.

Full-length human EIF6 (245 aa, Isoform-A) 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:	EIF6 (CAB; eIF-6; EIF3A; ITGB4BP; b(2)gcn)
Accession Number:	NP_002203
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, sucrose and DTT.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Orr,S.J., et al., *Proteomic and protein interaction network analysis of human T lymphocytes during cell-cycle entry*. Mol. Syst. Biol. 8, 573 (2012)

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Pressato,B., et al., *Deletion of chromosome 20 in bone marrow of patients with Shwachman-Diamond syndrome, loss of the EIF6 gene and benign prognosis*. Br. J. Haematol. 157 (4), 503-505 (2012)

Benelli,D., et al., *The translation factor eIF6 is a Notch-dependent regulator of cell migration and invasion*. PLoS ONE 7 (2), E32047 (2012)

Applications

1. May be used for in vitro EIF6 mediated ribosome biogenesis pathway regulation study with 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 EIF6 protein-protein interaction.
4. Potential diagnostic biomarker for various diseases, such as Shwachman-Diamond syndrome.
5. May be used as antigen for specific antibody development.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFMAVRASFENNCEIGCFAKLTNTYCLVAIGGSENFYSVFEGELSDTIPVV
HASIAGCRIIGRMCVGNRHGLLVPNNTTDQELQHIRNSLPDTVQIRRVEERLSALGNVTTCNDY
VALVHPDLDRETEEILADVLKVEVFRQTVADQVLVGSYCVFSNQGGLVHPKTSIEDQDELSSLL
QVPLVAGTVNRGSEVIAAGMVVNDWCAFCGLDTTSTELSVVESVFKLNEAQPSTIATSMRDSLI
DSLT