



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ELF2 Protein
Catalog Number: hTF-1561
Manufacturer: LD Biopharma, Inc.

Introduction

Human ETS-related transcription factor Elf-2 (ELF2) belongs to the Ets family of transcription factors, and physically interacts with acute myeloid leukemia 1 (Runx1), a frequent target transcription factor for chromosomal translocations in leukemia. Isoform-I of ELF2 regulates LYN and BLK promoter by interacting with RunX1, but Isoform-II of ELF2 may repress RuncX1 mediated transactivation.

Full-length human ELF2 cDNA (533aa, Isoform-II) was constructed with codon optimization technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. It was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: ELF2 (EU32; NERF; NERF-1a; NERF-1B; NERF-2)
Accession Number: NP_006865
Species: Human
Size: 40 µg / Vial
Composition: 0.40 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 -80°C for long term storage. Product is stable at 4 °C for at least 7 days.

Key References

Qiu Y, et al., *E74-like factor 2 transactivates valosin-containing protein gene, a gene involved in cancer growth*. Exp. Mol. Pathol. 84 (3), 226-229 (2008)

Bidet K, et al., *G3BP1, G3BP2 and CAPRINI are required for translation of interferon*



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stimulated mRNAs and are targeted by a dengue virus non-coding RNA. PLoS Pathog. 10 (7), E1004242 (2014)

Christensen RA, et al., *NERF2, a member of the Ets family of transcription factors, is increased in response to hypoxia and angiopoietin-1: a potential mechanism for Tie2 regulation during hypoxia.* J. Cell. Biochem. 85 (3), 505-515 (2002)

Applications

1. May be used for in vitro ELF2 mediated gene transcription in RunX1 signaling pathway study with “ProFectin” reagent based intracellular delivery of this protein.
2. May be used as specific protein substrate for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
3. May be used for ELF2 protein-protein interaction mapping.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGEFELATSLHEGPTNQDLLIRAVEASVHSSNAHCTDKT
IEAAEALLHMESPTCLRDSRSPVEVFVPPCVSTPEFIHAAMRPDVITETVVEVSTEESEPMDTS
PIPTSPDSHEPMKKKKVGRKPKTQQSPISNGSPELGIKKKPREGKGN'TTYLWEFLLDLLQDKNT
CPRYIKWTQREKGIKFLVDSKAVSKLWKGKHNKPDMMNYETMGRALRYYYQRGILAKVEGQRLVY
QFKDMPKNIIVIDDDKSETCNEDLAGTTDEKSLERVSLSAESLLKAASSVRSKGNSSPINCRA
EKGVARVVNITSPGHDASSRSP'TTASVSATAAPRTVRVAMQVPVVM'TSLGQKISTVAVQSVNA
GAPLITSTSP'TTATSPKVVIQTIPTVMPASTENGDKITMQPAKIIITIPATQLAQCQLQTKSNLT
GSGSINIVGTPLAVRALTPVSI AHGTPVMRLSMPTQQASGQTPPRVISAVIKGPEVKSEAVAKK
QEHDVKTLQLVEEKPADGNKTVTHVVVVSAPSAIALPVTMKTEGLVTCEK