



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

Name of Product: Recombinant Human PFN2 Protein
Catalog Number: hRP-0801
Manufacturer: LD Biopharma, Inc.

Introduction

Human profiling-2 protein encoded by PFN2 gene is a ubiquitous actin monomer-binding protein belonging to the profilin family. It is thought to regulate actin polymerization in response to extracellular signals. There are two alternatively spliced transcript variants encoding different isoforms described for PFN2 gene. PFN2 mRNA was highly enriched in brain tissues.

Full-length recombinant human PFN2 (140 aa, Isoform-1) 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: PFN2 (D3S1319E; PFL)
Accession Number: NP_444252
Species: Human
Size: 25 µg / Vial
Composition: 0.25 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

Ma,C.Y., et al.,*Decreased expression of profilin 2 in oral squamous cell carcinoma and its clinicopathological implications*. Oncol. Rep. 26 (4), 813-823 (2011)

Shao,J., et al.,*Phosphorylation of profilin by ROCK1 regulates polyglutamine aggregation*. Mol. Cell. Biol. 28 (17), 5196-5208 (2008)



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Xu,J., et al., *Identification of Rgl3 as a potential binding partner for Rap-family small G-proteins and profilin II*. Cell. Signal. 19 (7), 1575-1582 (2007)

Lederer,M., et al., *Profilin regulates the activity of p42POP, a novel Myb-related transcription factor*. J. Cell. Sci. 118 (PT 2), 331-341 (2005)

Applications

1. May be used for in vitro ROCK1 pathway regulation study with intracellular protein 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 PFN2 protein-protein interaction.
4. As potential diagnostic biomarker for bipolar disorder diseases.
5. As antigen for specific antibody production.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFMAGWQSYVDNLMCDGCCQEAAIVGYCDAKYVWAATAGGVFQSITPIEID
MIVGKDREGFFTNGLTGAKKCSVIRDSLYVDGDCTMDIRTKSQGGEPTYNVAVGRAGRVLVFFV
MGKEGVHGGGLNKKAYSMAKYLRDSGF