LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human PFDN1 Protein
Catalog Number: hRP-0837
Manufacturer: LD Biopharma, Inc.

Introduction

Eukaryotic prefoldin (PFD) is a heterohexameric chaperone with a jellyfish-like structure whose function is to deliver nonnative target proteins, principally actins and tubulins, to the eukaryotic cytosolic chaperonin for facilitated folding. Human Prefolding subunit 1 (PFDN1) gene encodes a member of the prefoldin beta subunit family. The encoded PFDN1 protein is one of six subunits of prefoldin, a molecular chaperone complex that binds and stabilizes newly synthesized polypeptides, thereby allowing them to fold correctly. The complex, consisting of two alpha and four beta subunits, forms a double beta barrel assembly with six protruding coiled-coils.

Full-length human PFDN1 (122 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:	PFDN1 (PDF; PFD1)
Accession Number:	NP_002613
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 -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Gstaiger,M., et al., *Control of nutrient-sensitive transcription programs by the unconventional prefoldin URI*. Science 302 (5648), 1208-1212 (2003)

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Simons,C.T., et al., *Selective contribution of eukaryotic prefoldin subunits to actin and tubulin binding*. J. Biol. Chem. 279 (6), 4196-4203 (2004)

Applications

1. May be used for in vitro synthesis protein refolding 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 PFDN1 protein-protein interaction.
4. May be used as antigen for specific antibody development.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFMAAPVDLELKKAFTELQAKVIDTQQKVKLADIQIEQLNRTKKHAHLTDT
EIMTLVDETNMYEGVGRMFILQSKEAIHSQLLEKQKIAEEKIKELEQKKSYLERSVKEAEDNIR
EMLMARRAQ