



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human PFND5 Protein
Catalog Number: hTF-1536
Manufacturer: LD Biopharma, Inc.

Introduction

Human prefoldin subunit 5 (PFDN5) gene encodes a member of the prefoldin alpha subunit family. The encoded 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. The encoded protein may also repress the transcriptional activity of the proto-oncogene c-Myc. Alternatively spliced transcript variants encoding different isoforms have been described.

Full-length human PFDN5 cDNA (153aa, Isoform-alpha) 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: PFDN5 (MM-1; PFD5)
Accession Number: NP_002615.2
Species: Human
Size: 50 µg / Vial
Composition: 1.0 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

Tashiro E, et al., *Prefoldin protects neuronal cells from polyglutamine toxicity by*



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preventing aggregation formation. J. Biol. Chem. 288 (27), 19958-19972 (2013)

Narita R, et al., *Rabring7 degrades c-Myc through complex formation with MM-1. PLoS ONE 7 (7), E41891 (2012)*

Ma HC, et al., *Hepatitis C virus ARFP/F protein interacts with cellular MM-1 protein and enhances the gene trans-activation activity of c-Myc. J. Biomed. Sci. 15 (4), 417-425 (2008)*

Yoshida T, et al., *Negative regulation of the Wnt signal by MM-1 through inhibiting expression of the wnt4 gene. Exp. Cell Res. 314 (6), 1217-1228 (2008)*

Applications

1. May be used for in vitro PFDN5 mediated gene transcription regulation for *c-Myc* 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 PFDN5 protein-protein interaction mapping.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGAQSINITELNLPQLEMLKNQLDQEVVEFLSTLSIAQLKVV
QTKYVEAKDCLNVLNKSNEGKELLVPLTSSMYVPGKLHDVEHVLIIDVGTGYYYVEKTAEDAKDF
KRRIDFLTKQMEKIQPALQEKHAMKQAVMEMMSQKIQQLTALGAAQATAKA