



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ZNF746 Protein
Catalog Number: HTF-0270
Manufacturer: LD Biopharma, Inc. USA

Introduction

Human ZNF746 (PARIS) is a 644 amino acid protein that contains a Kruppel-associated box (KRAB) at its N-terminal and a C2HC/C2H2 type zinc finger at its C terminals. This protein is highly conserved among human, mouse and rat, and widely expressed in many tissues. Recent data indicated that ZNF746 accumulated in models of parkin inactivation and in human Parkinson's disease (PD). ZNF746 represses the expression of the transcriptional co-activator, PGC-1 α and the PGC-1 α target gene, NRF-1 by binding to insulin response sequences in the PGC-1 α promoter. Meanwhile, ZNF746 is also regulated by E3 ubiquitin ligase (parkin) and play its role in the progress of PD disease.

Full-length human ZNF746 cDNA (643aa, derived from BC068505) was constructed with codon optimization using gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. It was 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:	ZNF746 (PARIS)
Accession Number:	NP_689770
Species:	Human
Size:	50 μ g / 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, Glycerol and others.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least two weeks.

Key References

Joo-Ho Shin., et al. ***PARIS (ZNF746) repression of PGC-1 α contributes to neurodegeneration in Parkinson's disease.*** Cell.144. 689-792 (2011)

Hongyan Zhou, et al. ***Generation of Induced Pluripotent Stem Cells Using Recombinant Proteins.*** Cell Stem Cell 4: 381-384 (2009)



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Applications

1. May be used for in vitro ZFP746 mediated gene transcription regulation study in neuronal cells by intracellular delivery of this protein with ZFP746 protein delivery reagent such as ProFectin reagent kit.
2. May be used for ZFP746 mapping protein-protein interaction.
3. May be used as ZFP746 specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays, such as E3 ubiquitin ligase assay (parkin).
4. Potential biomarker protein / therapeutic target protein for cancer prognosis and cancer treatment drug development.
5. As native human ZFP746 antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Human ZFP746 Protein Sequence (72.3 kD)

MASMTGGQQMGRGHHHHHHENLYFQGGEFAEEVAAPISPWMTAATIQAMERKIESQAARLLSLE
GRTGMAEKKLADCEKTAVEFGNQLEGKWAVLGTLLQYGLLQRRLENVENLLRNRNFWILRLPP
GSKGESPKWGLKLEDWQKELYKHVMRGNYETLVSLDYAISKPEVLSQIEQGKEPCNWRP
PDVPVDPSPGSGPPVPAPDLLMQIKQEGELQLQEQQALGVEAWAAGQPDIGEEPWGLS
QLDSGAGDISTDATSGVHSNFSTTIPPTSWQTDLPHPHPSSACSDGTLKLNTAASTEDVKIVIKTEVQEE
EVLVATPVHPTDLEAHGTLFGPGQATRFFPSPAQEGAWESQGSSFPSQDPVLGLREPARPERDMG
ELSPAVAQEETPPGDWLFGGVRWGNFRCKPPVGLNPRTGPEGLPYSSPDNGEAILDPSQAPRP
FNEPCKYPGRTKGFGHKPGLKKHPAAPPGRPFCTCATCGKSFQLQVLSLAHQ RSCGAPDGSGPG
TGGGSGSGGGGGSGGGSARDGSALRCGECGRCFTRPAHLIRHMLHTGERPFPCTECEKRFT
ERSKLIDHYRTHTGVRPFCTCTVCGKSFIRKDHRLRKHQRNHAAGAKTPARGQPLPTPPAPDPDFK
SPASKGPLASTDLVTDWTCGLSVLGPTDGGDM