**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.

## 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 coactivator, PGC-1a and the PGC-1a target gene, NRF-1 by binding to insulin response sequences in the PGC-1a promoter. Meanwhile, ZNF746 is also regulated by E3 ubiquitin ligase (parkin) and play its role in the progress of PD disease.

Full-length recombinant human ZNF746 protein was constructed with N_terminal T7 tag, and was expressed in E. coli as inclusion bodies. The protein was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified. Incubating this protein using LD Biopharma's novel polymer will effectively deliver the protein intracellularly for studying its function in vitro.

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| **Gene Symbol:** | ZNF746 (PARIS) |
| **Accession Number:** | NP_689770 |
| **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 -20°C for long term storage. Product is stable at 4 °C for at least 7 days. |

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## Key References

Joo-Ho Shin., et al. *PARIS (ZNF746) repression of PGC-1a 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)

## Applications

1. Protein transduction for gene transcription regulation study in vitro.
2. Active recombinant protein, may be used for ELISA based DNA / protein binding assay.
3. As specific protein substrate for E3 ubiquitin ligase (parkin).
4. As immunogen for specific antibody production.

## Quality Control

1. Purity: > 90% by SDS-PAGE.
2. DNA binding activity: Not tested yet.

## Recombinant Protein Sequence

29aa_Tag_AEAVAAPISPWTMAATIQAMERKIESQAARLLSLEGRTGMAEKKLADCEKTAVEF
GNQLEGKWAVLGTLLQEYGLLQRRLENVENLLRNRNFWILRLPPGSKGESPKEWGKLEDWQKEL
YKHVMRGNYETLVSLDYAISKPEVLSQIEQGKEPCNWRRPGPKIPDVPVDPSPGSGPPVPAPDL
LMQIKQEGELQLQEQQALGVEAWAAGQPDIGEEPWGLSQLDSGAGDISTDATSGVHSNFSTTIP
PTSWQTDLPPHHPSSACSDGTLKLNTAASTEDVKIVIKTEVQEEEVVATPVHPTDLEAHGTLFG
PGQATRFFPSPAQEGAWESQGSSFPSQDPVLGLREPARPERDMGELSPAVAQEETPPGDWLFGG
VRWGWNFRCKPPVGLNPRTGPEGLPYSSPDNGEAILDPSQAPRPFNEPCKYPGRTKGFGHKPGL
KKHPAAPPGGRPFTCATCGKSFQLQVSLSAHQRSCGAPDGSGPGTGGGGSGSGGGGGGSGGGSA
RDGSALRCGECGRCFTRPAHLIRHRMLHTGERPFPCTECEKRFTERSKLIDHYRTHTGVRPFTC
TVCGKSFIRKDHLRKHQRNHAAGAKTPARGQPLPTPPAPPDPFKSPASKGPLASTDLVTDWTCG
LSVLGPTDGGDM