LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human PPIE Protein
Catalog Number: hRP-0773
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human peptidyl-prolyl cis-trans isomerase E (PPIE) gene is a member of the peptidyl-prolyl cis-trans isomerase (PPIase) family. PPIases catalyze the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and accelerate the folding of proteins. This protein contains a highly conserved cyclophilin (CYP) domain as well as an RNA-binding domain. It was shown to possess PPIase and protein folding activities, and it also exhibits RNA-binding activity. Recent data indicated that PPIE specifically interactive with MLL to regulate H3K4me3 activity for down-stream gene transcription activation or repression switch.

Full-length human PPIE (301aa, isoform_1) gene was constructed with 15aa N-terminal T7 tag and expressed in E.coli as inclusion bodies, refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	PPIE (CYP-33; CYP33)
Accession Number:	NP_006103
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 30 days.

Key References

Park,S.,et al., *The PHD3 domain of MLL acts as a CYP33-regulated switch between*

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MLL-mediated activation and repression. Biochemistry 49 (31), 6576-6586 (2010)

Hom,R.A., et al., *Molecular mechanism of MLL PHD3 and RNA recognition by the Cyp33 RRM domain*. J. Mol. Biol. 400 (2), 145-154 (2010)

Wang,Z., et al., *Pro isomerization in MLL1 PHD3-bromo cassette connects H3K4me readout to CyP33 and HDAC-mediated repression*. Cell 141 (7), 1183-1194 (2010)

Applications

1. May be used for in vitro MLL/H3K4me3 gene transcription activation 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 or RNA binding assay development.
3. May be used for mapping MLL/H3K4me3 protein–protein interaction assay development.
4. May be used as antigen for specific antibody development and potential cancer diagnostic development.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFMATTKRVLYVGGLAEEVDDKVLHAAFIPFGDITDIQIPLDYETEKHRGF
AFVEFELAEDAAAAIDNMNESELFGRTIRVNLAKPMRIKEGSSRPVWSDDDWLKKFSGKTLEEN
KEEEGSEPPKAETQEGEPIAKKARSNPQVYMDIKIGNKPAGRIQMLLRSDVVPMTAENFRCLCT
HEKGFGFKGSSFHRIIPQFMCQGGDFTNHNGTGGKSIYGKKFDDENFILKHTGPGLLSMANSGP
NTNGSQFFLTCDKTDWLDGKHVVFGEVTEGLDVLRQIEAQGSKDGKPKQKVIIADCGEYV