



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human PRPS2 Protein
Catalog Number: hRP-1415
Manufacturer: LD Biopharma, Inc.

Introduction

Human PRPS2 gene encodes a phosphoribosyl pyrophosphate synthetase that plays a central role in the synthesis of purines and pyrimidines. The encoded protein catalyzes the synthesis of 5-phosphoribosyl 1-pyrophosphate from ATP and D-ribose 5-phosphate. Recent data indicated that PRPS2 expression was tightly controlled by Myc protein activities and plays a critical role in oncogenesis.

Full-length human PRPS2 (317aa, Isoform-2, derived from BC110875) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site 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: PRPS2 (PRSII)
Accession Number: NP_002756
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, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

John T. Cunningham, et al., *Protein and Nucleotide biosynthesis are coupled by a single rate-limiting enzyme, PRPS2, to drive cancer*. Cell 157, 1088 – 1103, May 22. (2014)

Mannava S, et al., *Direct role of nucleotide metabolism in C-MYC-dependent proliferation of melanoma cells*. Cell Cycle 7 (15), 2392-2400 (2008)



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Applications

1. May be used for in vitro PRPS2 mediated *myc signaling* regulation study for cancer cell metabolic rate controlling by intracellular delivery of this protein with “ProFectin” reagents.
2. May be used for mapping protein-protein interaction.
3. May be used as specific substrate protein for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFPNIVLFSGSSHQDLSQRVADRLGLELGKVVTKKFS
NQETSVEIGESVRGEDVYIIQSGCGEINDNLMELLIMINACKIASSSRVTAVIPCFPYARQDKK
DKSRAPISAKLVANMLSVAGADHIITMDLHASQIQGFFDIPVDNLYAEPAVLQWIRENIAEWKN
CIIVSPDAGGAKRVTSIADRLNVEFALIHKERKKANEVDRMVLVGDVKDRVAI LVDDMADTCGT
ICHAADKLLSAGATKVYAILTHGIFSGPAISRINNAAFEAVVVTNTIPQEDKMKHCTKIQVIDI
SMILAEAIRRTHNGESVSYLFSHVPL