



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human RPLP0 Protein
Catalog Number: hRP-1580
Manufacturer: LD Biopharma, Inc.

Introduction

Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. Human 60S acidic ribosomal protein P0 (RPLP0) gene encodes a ribosomal protein that is a component of the 60S subunit. The protein, which is the functional equivalent of the E. coli L10 ribosomal protein, belongs to the L10P family of ribosomal proteins. It is a neutral phosphoprotein with a C-terminal end that is nearly identical to the C-terminal ends of the acidic ribosomal phosphoproteins P1 and P2. The P0 protein can interact with P1 and P2 to form a pentameric complex consisting of P1 and P2 dimers, and a P0 monomer. The protein is located in the cytoplasm.

Full-length human RPLP0 (316aa) 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: RPLP0 (L10E; LP0; P0; PRLP0; RPP0)
Accession Number: NP_000993.1
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, Sucrose, 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

Li J, et al., *Significance of antibodies against the native ribosomal P protein complex and*



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recombinant P0, P1, and P2 proteins in the diagnosis of Chinese patients with systemic lupus erythematosus. J. Clin. Lab. Anal. 27 (2), 87-95 (2013)

Artero-Castro A, et al., Expression of the ribosomal proteins Rplp0, Rplp1, and Rplp2 in gynecologic tumors. Hum. Pathol. 42 (2), 194-203 (2011)

Fu J, et al., Identification of genes for normalization of quantitative real-time PCR data in ovarian tissues. Acta Biochim. Biophys. Sin. (Shanghai) 42 (8), 568-574 (2010)

Applications

1. May be used as auto-antibodies detection reagent, which will react with sera of systemic lupus erythematosus patients.
2. May be used for in vitro RPLP0 mediated immunophilins pathways' regulation study for controlling immune-reaction by intracellularly delivery this protein with "ProFectin" reagent.
3. May be used for RPLP0 protein-protein interaction assay.
4. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
5. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGEFPREDRATWKSNYFLKIIQLDDYPKCFIVGADNVG
SKQMQQIRMSLRGKAVVLMGKNTMMRKAIRGHLENNPALEKLLPHIRGNVGFVFTKEDLTEIRD
MLLANKVPAAARAGAIAPCEVTVPAQNTGLGPEKTSFFQALGITTKISRGTIEILSDVQLIKTG
DKVGASEATLLNMLNISPFSGFLVIQQVFDNGSIYNPEVLDITEETLHSRFLGVRNVASVCLQ
IGYPTVASVPHSIINGYKRVLALSVETDYTFPLAEKVKAFLADPSAFVAAAPVAAATTAAPAAA
AAPAKVEAKEESESEDEDMGFGLFD