



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human REG1B Protein  
**Catalog Number:** hRP-1193  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human regenerating islet-derived 1 beta (REG1B) gene is a type I subclass member of the Reg gene family. The Reg gene family is a multigene family grouped into four subclasses, types I, II, III and IV based on the primary structures of the encoded proteins. This gene encodes a protein secreted by the exocrine pancreas that is highly similar to the REG1A protein. The related REG1A protein is associated with islet cell regeneration and diabetogenesis, and may be involved in pancreatic lithogenesis. Reg family members REG1A, REGL, PAP and this gene are tandemly clustered on chromosome 2p12 and may have arisen from the same ancestral gene-by-gene duplication.

Full-length mature form of human REG1B cDNA (23 – 116 aa, derived from BC027895) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is 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:** REG1B (PSPS2; REGI-beta; REGL)  
**Accession Number:** NP\_006498  
**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.



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## Key References

Peterson, K.M., et al., *REG1B as a predictor of childhood stunting in Bangladesh and Peru*. Am. J. Clin. Nutr. 97 (5), 1129-1133 (2013)

Peterson, K.M., et al., *The expression of REG 1A and REG 1B is increased during acute amebic colitis*. Parasitol. Int. 60 (3), 296-300 (2011)

Yang, L., et al., *Expression of MK-1 and RegIV and its clinicopathological significances in the benign and malignant lesions of gallbladder*. Diagn Pathol 6, 100 (2011)

Usami, S., et al., *Regenerating gene I regulates interleukin-6 production in squamous esophageal cancer cells*. Biochem. Biophys. Res. Commun. 392 (1), 4-8 (2010)

## Applications

1. May be used for in vitro REG1B protein mediated inflammation pathway regulation study in various diseases with this protein as either coating matrix protein or soluble factor.
2. May be used as REG1B protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. Potential biomarker protein for various diseases, such as amebic colitis.
5. As antigen for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGEFQESQTELPNPRISCP EGTNAYRSYCYFNEDPETW  
VDADLYCQNMNSGNLVSVLTQAE GAFVASLIKESSTDDSNVWIGLHDPKKNRRWHWSSGSLVSY  
KSWDTGSPSSANAGYCASLTSCSGFKKWKDESCEKKFSFVCKFKN