

# Human REG1B / PSPS2 Protein (His Tag)

Catalog Number: 11638-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

PSPS2; REGH; REGI-BETA; REGL

### Protein Construction:

A DNA sequence encoding the human REG1B (NP\_006498.1) (Met 1-Asn 166) was fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Gln 23

### Molecular Mass:

The recombinant human REG1B consists of 155 amino acids and predicts a molecular mass of 17.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh REG1B is approximately 19-21 kDa due to different glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

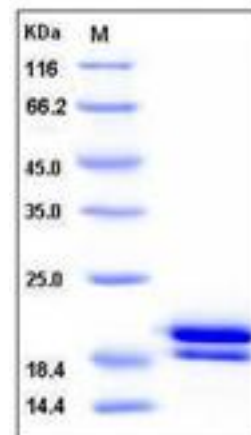
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Regenerating gene (Reg), first isolated from a regenerating islet cDNA library, encodes a secretory protein with a growth stimulating effect on pancreatic beta cells, and could be associated with fibrocalculus pancreatopathy. Reg and Reg-related genes which were expressed in various organs have been revealed to constitute a multigene family, the Reg family consisting of four subtypes (types I, II, III, IV) and are involved in cancers and neurodegenerative diseases. Regenerating islet-derived 1 beta (REG1B), also known as Lithostathine-1-beta and Pancreatic stone protein 2 (PSPS2), is a types I Reg protein and contains one typical C-type lectin domain. REG1B is a 166-amino acid protein which has 22 amino acid substitutions in comparison with the previously isolated human REG1A, and it is was expressed only in pancreas. REG1B is normally found in the exocrine pancreas, whereas in other tissues it appears either only under pathological conditions, such as Alzheimer's disease (brain), cancer (colon), or during regeneration such as neuronal sprouting in brain and pancreas regeneration. REG1B might act as an inhibitor of spontaneous calcium carbonate precipitation. The REG1A and REG1B gene and proteins could play different roles in the pancreas.

## References

- 1.Moriizumi S, *et al.* (1994) Isolation, structural determination and expression of a novel reg gene, human reg1 beta. *Biochim Biophys Acta.* 1217(2): 199-202.
- 2.Sanchez D, *et al.* (2001) Preferential expression of reg I beta gene in human adult pancreas. *Biochem Biophys Res Commun.* 284(3): 729-37.
- 3.Boonyasrisawat W, *et al.* (2002) Analysis of the reg1alpha and reg1beta gene transcripts in patients with fibrocalculus pancreatopathy. *Southeast Asian J Trop Med Public Health.* 33(2): 365-72.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>