

Rhesus REG1B / PSPS2 Protein (Fc Tag)

Catalog Number: 90163-C02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

REG1B

Protein Construction:

A DNA sequence encoding the rhesus REG1B (NP_001181497.1) (Met1-Asn166) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rhesus

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 rhesus REG1B comprises 385 amino acids and has a calculated molecular mass of 43.2 KDa.

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:

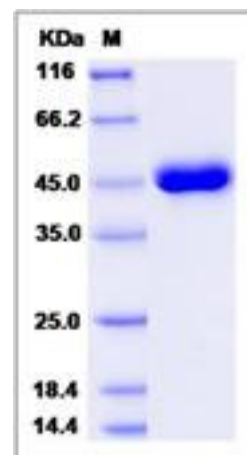
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 fibrocalculous 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 fibrocalculous pancreatopathy. *Southeast Asian J Trop Med Public Health*. 33(2): 365-72.

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