

Human REG3G / PAP1B Protein (His Tag)

Catalog Number: 11641-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

LPPM429; PAP-1B; PAP1B; PAPIB; REG-III; REGIII; UNQ429

Protein Construction:

A DNA sequence encoding the human REG3G (NP_001008388.1) (Met 1-Asp 175) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % 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: Glu 27

Molecular Mass:

The recombinant human REG3G consists of 160 amino acids and migrates as an approximately 18 kDa band in SDS-PAGE under reducing conditions as predicted.

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:

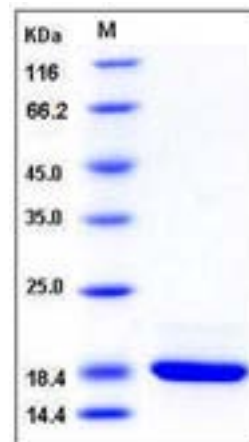
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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. Reg and Reg-related genes which were expressed in various organs have been revealed to constitute a multigene family, the Reg family, which consists of four subtypes (types I, II, III, IV) based on the primary structures of the encoded proteins of the genes, which are associated with tissue repair and have been directly implicated in pancreatic beta-cell regeneration. Reg proteins are expressed in various organs and are involved in cancers and neurodegenerative diseases. They display a typical C-type lectin-like domain but possess additional highly conserved amino acids. Regenerating islet-derived 3 gamma (REG3G), also known as pancreatitis-associated protein 1B (PAP1B), is a member of the secreted Reg superfamily and contains one typical C-type lectin domain. REG3G is expressed weakly in pancreas, strongly in intestinal tract, but not in hyperplastic islets. REG3G might be a stress protein involved in the control of bacterial proliferation. It was indicated that REG3G specifically targets Gram-positive bacteria because it binds to their surface peptidoglycan layer, and serves as one of several antimicrobial peptides produced by paneth cells via stimulation of toll-like receptors (TLRs) by pathogen-associated molecular patterns (PAMPs).

References

1. Narushima Y, *et al.* (1997) Structure, chromosomal localization and expression of mouse genes encoding type III Reg, RegIII alpha, RegIII beta, RegIII gamma. *Gene*. 185(2): 159-68.
2. Nata K, *et al.* (2004) Molecular cloning, expression and chromosomal localization of a novel human REG family gene, REG III. *Gene*. 340(1): 161-70.
3. Laurine E, *et al.* (2005) PAP 1B, a new member of the Reg gene family: cloning, expression, structural properties, and evolution by gene duplication. *Biochim Biophys Acta*. 1727(3): 177-87.

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