

Regenerating Islet-Derived 1 Alpha Recombinant Protein | REG1A recombinant protein

Recombinant Human Regenerating Islet-Derived 1 Alpha

CATALOG #
AAA38421

HOST
E Coli

PRODUCT SYNONYMS

Regenerating Islet-Derived 1 Alpha; Recombinant Human Regenerating Islet-Derived 1 Alpha; REG1A Human; Regenerating Islet-Derived 1 Alpha Human Recombinant; Lithostathine-1-alpha; Pancreatic stone protein; PSP; Pancreatic thread protein; PTP; Islet of Langerhans regenerating protein; REG; Regenerating protein I alpha; Islet cells regeneration factor; ICRF; REG1A; PSPS; P19; PSPS1; MGC12447; REG1A recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% as determined by SDS-PAGE.
Form/Format	Filtered (0.4 um) and lyophilized from 0.5 mg/ml in 5mM Tris, 25mM NaCl, pH 7.5.
Sequence	MKHHHHH HASHMQ EAQTELPQAR ISCEPGTNAY RSYCYFNEED RETWVDADLY CQNMNSGNLV SVLTQAEGAF VASLIKESGT DDFNVWIGLH DPKKNRRWHW SSGSLVSYKS WGIGAPSSVN PGYCVSLTSS TGFQKWKDVP CEDKFSFVCK FKN
Sequence Length	166
Solubility	Add deionized water to a working concentration approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by appropriate sterile filter before using it in the cell culture.
Preparation and Storage	Store lyophilized protein at -20 degree C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4 degree C for a limited period of time; it does not show any change after two weeks at 4 degree C.

ADDITIONAL INFORMATION

Related Product Information for REG1A recombinant protein

Description: The Recombinant Human REG 1 alpha is produced with N-terminal fusion His Tag. The Recombinant Human REG 1 alpha His-Tagged Fusion Protein, has a molecular weight of 17.8 kDa protein containing 144 amino acid residues of the Human REG 1 alpha and 12 additional amino acid residues His Tag.

Introduction: REG protein was shown to be stimulated during the regeneration of pancreatic islets. Since then, many Reg-related proteins have been identified in humans and other animals. In human, the four REG family genes, i.e., REG 1 alpha, REG 1 beta, REG-related sequence (RS) and HIP/PAP, have so far been isolated. These Reg-related proteins are classified into four subfamilies according to their amino-acid sequences, but they share a similar structure and physiological function. Reg protein is a growth factor for pancreatic beta cells and also suggests that the administration of Reg protein could be used as another therapeutic approach for diabetes mellitus. Human REG cDNA which encodes a 166-amino acid protein with a 22-amino acid signal peptide. The amino acid sequence of human REG protein has 68% homology to that of rat Reg protein. Reg I was found to be expressed mainly in pancreatic beta and acinoductular cells as well as gastric fundic enterochromaffin-like (ECL) cells. Reg I production in ECL cells is stimulated by gastrin, as well as by the proinflammatory cytokine, cytokine-induced neutrophil chemoattractant (CINC)-2Beta. In patients with chronic hypergastrinemia, Reg production is stimulated, with the increased proliferation of gastric mucosal cells. Patients with Helicobacter pylori infection also showed increased Reg production in the gastric mucosa, partly via increased plasma gastrin concentration and partly via increased proinflammatory cytokine production. The serum concentration of the reg-protein was significantly higher in patients with various pancreatic diseases than in normal controls, and was also significantly higher in patients with acute pancreatitis or chronic relapsing pancreatitis than in patients with chronic pancreatitis. Furthermore, the serum PSP/reg-protein concentration was also significantly increased in liver cirrhosis, choledocholithiasis, and various cancers of the digestive system.

Product Categories/Family for REG1A recombinant protein

[Recombinant & Natural Proteins](#); [Recombinant Proteins](#); [Regenerating Islet-Derived](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	29725633
NCBI GeneID	5967
NCBI Accession #	NP_002900.2
NCBI GenBank Nucleotide #	NM_002909.4
UniProt Accession #	P05451; P11379; Q4ZG28
Molecular Weight	18,731 Da
NCBI Official Full Name	lithostathine-1-alpha
NCBI Official Synonym Full Names	regenerating islet-derived 1 alpha
NCBI Official Symbol	REG1A
NCBI Official Synonym Symbols	P19; PSP; PTP; REG; ICRF; PSPS; PSPS1
NCBI Protein Information	lithostathine-1-alpha; REG-1-alpha; islet cells regeneration factor; islet of langerhans regenerating protein; lithostathine 1 alpha; pancreatic stone protein, secretory; pancreatic thread protein; protein-X; regenerating islet-derived protein 1-alpha; regenerating protein I alpha
UniProt Protein Name	Lithostathine-1-alpha
UniProt Gene Name	REG1A
UniProt Synonym Gene Names	PSPS; PSPS1; REG; ICRF; REG; PSP; PTP; REG-1-alpha
UniProt Entry Name	REG1A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/reg1a-recombinant-protein-e-coli/38421>