Recombinant Human Regenerating Islet-derived 1 Alpha, His-tagged

Cat. No. REG1A-192H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human REG 1 alpha (His-tagged) contains 144 amino acids and has a molecular mass of 17.8 kDa. And this protein expressed in*E.Coli*.
Species	Human
Source	E.coli
Description	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. Reg protein is a growth factor for pancreatic beta cells and also suggest that the administration of Reg protein could be used as another therapeutic approach for diabetes mellitus. human REG cDNA which encoded 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.
Sequences of Amino Acids	MKHHHHHHAS HMQEAQTELP QARISCPEGT NAYRSYCYYF NEDRETWVDA DLYCQNMNSG NLVSVLTQAE GAFVASLIKE SGTDDFNVWI GLHDPKKNRR WHWSSGSLVS YKSWGIGAPS SVNPGYCVSL TSSTGFQKWK DVPCEDKFSF VCKFKN.

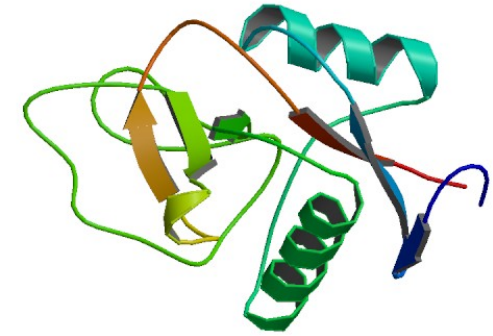
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Specificity	The amino acid sequence of the recombinant Human REG 1 alpha is 100% homologous to the amino acid sequence of the Human REG 1 alpha without signal sequence.
Purification Method	Two-step procedure using affinity Ni-NTA chromatography and size exclusion chromatography.
Purity	>95% (SDS-PAGE analyzed).
Formulation	Sterile filtered and lyophilized from 0.5 mg/ml in 5mM Tris, 25mM NaCl, pH 7.5.
Reconstitution	Add 0.2 ml of deionized H2O and let the lyophilized pellet dissolve completely. Storage: Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.
Stability/Shelf Life	The lyophilized protein remains stable until the expiry date when stored at -20°C.
Applications	Western blotting, ELISA.

GENE INFORMATION

Gene Name	REG1A regenerating islet-derived 1 alpha [Homo sapiens]
Synonyms	REG1A; REG; PSP; ICRF; MGC12447; P19; PSPS; PSPS1; PTP; MGC12447; protein-X; OTTHUMP00000160485; Islet cells regeneration factor; Islet of Langerhans regenerating protein; Pancreatic stone protein; Pancreatic thread protein; Regenerating protein I alpha; lithostathine 1 alpha; pancreatic stone protein, secretory; regenerating islet-derived 1 alpha; regenerating islet-derived 1 alpha (pancreatic stone protein, pancreatic thread protein); Regenerating islet-derived 1 alpha (pancreatic stone protein, pancreatic thread protein)

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Gene ID	5967
mRNA Refseq	NM_002909
Protein Refseq	NP_002900
MIM	167770
UniProt ID	P05451
Chromosome Location	2p12
Function	Binding; growth factor activity; sugar binding
PDB rendering based on 1lit.	

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