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

Cat. No. REG1B-193H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human REG 1 beta (His-tagged) produced in*E.coli*contains 144 amino acids and has a molecular mass of 17.8 kDa.
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. 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 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. Reg I production in ECL cells is stimulated by gastrin, as well as by the proinflammatory cytokine, cytokine-induced neutrophil chemoattractant (CINC)-2Beta.
Sequences Of Amino Acids	MKHHHHHHAS HMQESQTELP NPRISCPEGT NAYRSYCYYF NEDPETWVDA

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	DLYCQNMNSG NLVSVLTQAE GAFVASLIKE SSTDDSNVWI GLHDPKKNRR WHWSSGSLVS YKSWDTGSPS SANAGYCASL TSCSGFKKWK DESCEKKFSF VCKFKN.
Specificity	The amino acid sequence of the recombinant Human REG 1 beta is 100% homologous to the amino acid sequence of the Human REG 1 beta without signal sequence.
Purification Method	Two-step procedure using affinity Ni-NTA chromatography and size exclusion chromatography.
Purity	Purity of recombinant Human REG 1 beta is >95% (SDS-PAGE analyzed).
Formulation	Sterile filtered and lyophilized from 0.5 mg/ml in 20 mM Tris , pH 8.0.
Reconstitution	Add 0.2 ml of deionized H_2O and let the lyophilized pellet dissolve completely.
Stability/Shelf Life	The lyophilized protein remains stable until the expiry date when stored at -20°C.
Applications	Western blotting, ELISA.
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.

GENE INFORMATION

Gene Name	REG1B regenerating islet-derived 1 beta [Homo sapiens]
Synonyms	REG1B; PSPS2; REGH; REGI-BETA; REGL; Regenerating protein I beta; lithostathine 1 beta; regenerating islet-derived 1 beta; secretory pancreatic stone

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	protein; regenerating islet-derived 1 beta (pancreatic stone protein, pancreatic thread protein); Regenerating islet-derived 1 beta (pancreatic stone protein, pancreatic thread protein); secretory pancreatic stone protein 2
Gene ID	5968
mRNA Refseq	NM_006507
Protein Refseq	NP_006498
MIM	167771
UniProt ID	P48304
Chromosome Location	2p12
Function	binding; sugar binding

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