9051 Mira Mesa Blvd, #910094
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REG3A Human

Regenerating Islet-Derived 3 Alpha Human Recombinant
RCP1843

Product Overview

Name	REG3A Human
Description	
Regenerating Islet-Derived 3 Alpha Human Recombinant	
Accession (Primary)	Q06141
Synonyms	
Regenerating islet-derived protein 3 alpha, Reg III-alpha, Pancreatitis-associated protein 1, REG3A, HIP, PAP, PAP1, REG3, INGAP, PAP-H, PBCGF, REG-III.	
Introduction	
Pancreatitis-associated protein (PAP) is a secretory protein not normally expressed in healthy pancreas but highly induced during acute pancreatitis. While PAP has been shown to be anti-bacterial and antiapoptotic in vitro, its definitive biological function in vivo is not clear. Using antisepse oligonucleotides, inhibition of PAP expression significantly worsened pancreatitis in a rat model. During pancreatitis, PAP released by the pancreas could mediate lung inflammation through induction of hepatic TNF- alpha expression and subsequent increase in circulating TNF-alpha. PAP is activated in primary liver cancers. In normal liver, the protein is undetectable in normal mature hepatocytes and found only in some ductular cells, representing potential hepatic progenitor cells. PAP can be considered hepatic cytokine that combines mitogenic and anti-apoptotic functions regarding hepatocytes, and consequently acts as a growth factor in vivo to enhance liver regeneration. In pancreatic cancor, PAP was overexpressed in 79% (30 of 38) of pancreatic ductal adenocarcinoma, 19% (7 of 36) of chronic pancreatitis, and 29% (2 of 7) of mucinous cystadenoma. PAP was found in malignant ductular structures in pancreatic carcinomas as well as in benign proliferating ductules and acinar cells in chronic pancreatitis. Elevation of PAP in patients with pancreatic cancer is not merely explainable by concomitant pancreatitis, but seems to be due to increased PAP production by the cancer cells and is also correlated to tumour load as expressed by the UICC stages. Epithelial expression of PAP was induced under intestinal mucosal inflammation initiated by exposure to commensal bacteria or DSS as well as inflamed IBD colon. Increased serum level of PAP diagnosed ileal location in active Crohn disease with a sensitivity of 60%, a specificity of 94%, a positive predictive value of 84% and a negative predictive value of 81%. Elevated serum PAP (> 50 ng/mL) is significantly associated with disease activity and ileal location of Crohn disease.	
Source	
Escherichia Coli.	

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Physical Appearance

Filtered White lyophilized (freeze-dried) powder.

Formulation

Filtered (0.4 µm) and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH-4.

Stability

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.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

MRGSHHHHHH GMASHM EEPQ RELPSARIRC PKGSKAYGSH CYALFLSPKS WTDADLACQK RPSGNLVSVL SGAEGSFVSS LVKSIGNSYS YVWIGLHDPT QGTEPNGEGW EWSSSDVMNY FAWERNPSTI SSPGHCASLS RSTAFLRWKD YNCNVRLPYV CKFTD.

Solubility

It is recommended to add 0.1M Acetate buffer pH-4 to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 µg/ml. In higher concentrations the solubility of this antigen is limited. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Applications

Western blotting, ELISA.

Precautions

REG3A Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q06141)