Data Sheet (Cat.No.TMPY-01336)

TargetMol

REG3A Protein, Human, Recombinant (His)

General Information

Synonyms:	HIP/PAP;INGAP;REG3;PAP1;PAP-H;regenerating family member 3 α;PBCGF;REG-III;HIP;REG3V;REG3A;regenerating family member 3 alpha;PAP
Protein Construction:	A DNA sequence encoding the human REG3A (Q06141-1) (Met 1-Asp 175) precursor was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 27
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q06141-1
Molecular Weight:	18 kDa (predicted); 18 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Regenerating islet-derived protein 3-alpha, also known as Regenerating islet-derived protein III-alpha, REG-3-alpha, REG3A, and HIP, is secreted protein that contains one C-type lectin domain. REG3A is constitutively expressed in intestine, and is a pancreatic secretory protein that may be involved in cell proliferation or differentiation. It is overexpressed during the acute phase of pancreatitis and in some patients with chronic

pancreatitis. REG3A and REG1A proteins are both involved in liver and pancreatic regeneration and proliferation. REG3A is also a stress protein involved in the control of bacterial proliferation. REG3A is down-regulated in most primary human gastric cancer cells, and might be useful in the diagnosis of gastric cancer. Additionally, REG3A is a target of beta-catenin signaling in Huh7 hepatoma cells. The REG1A and REG3A are downstream targets of the Wnt pathway during liver tumorigenesis.

Reference

Cavard C, et al. (2006) Overexpression of regenerating islet-derived 1 alpha and 3 alpha genes in human primary liver tumors with beta-catenin mutations. Oncogene. 25(4): 599-608.

Choi B, et al. (2007) Downregulation of regenerating islet-derived 3 alpha (REG3A) in primary human gastric adenocarcinomas. Exp Mol Med. 39(6): 796-804.