Mouse REG4 / GISP / RELP Protein (His Tag)

Catalog Number: **50202-M08H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

GISP; REG-IV; RELP; 2010002L15Rik; GISP; RELP

Protein Construction:

A DNA sequence encoding mouse REG4 (NP_080604.2) (Met 1-Thr 157) was expressed with the polyhistide tag at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion and proliferation of HCT-116 human colorectal carcinoma cells (ATCC: CCL-247) under low serum conditions. When 5 x 10^4 cells/well are added to mouse REG4 coated plates (0.16 μg/ml and 100 μl/well), >70% cell will adhere after 60 minutes at 37℃.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Asp 23

Molecular Mass:

The recombinant mouse REG4 comprises 146 amino acids and has a predicted molecular mass of 17.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm REG4 is approximately 23-30 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

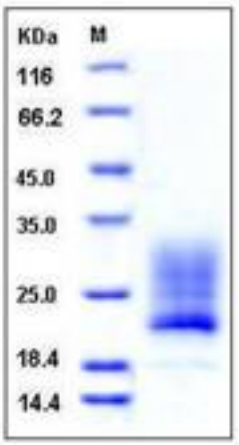
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Regenerating islet-derived protein 4, also known as REG-like protein, REG4, GISP and RELP, a member of the regenerating gene family belonging to the calcium (C-type) dependent lectin superfamily, has been found to be involved in malignancy in several different organs including the stomach, colorectum, pancreas and prostate. It is highly expressed in the gastrointestinal tract and markedly up-regulated in colon adenocarcinoma, pancreatic cancer, gastric adenocarcinoma, and inflammatory bowel disease. Expression of the Reg4 in different cell types has been associated with regeneration, cell growth and cell survival, cell adhesion and resistance to apoptosis. REG4 protein overexpression is associated with an unfavorable response to preoperative chemoradiotherapy and may be used as a predictive biomarker clinically. REG4 may play an important role in the development and progression of colorectal cancer, as well as in intestinal morphogenesis and epithelium restitution.

References

1.Li FY, *et al.* (2010) RegIV expression showing specificity to gastrointestinal tract and its potential role in diagnosing digestive tract neuroendocrine tumor. J Zhejiang Univ Sci B. 11(4):258-66.
2.Rafa L, *et al.* (2010) REG4 acts as a mitogenic, motility and pro-invasive factor for colon cancer cells. Int J Oncol. 36(3): 689-98.
3.Hu G, *et al.* (2010) Purification of a bioactive recombinant human Reg IV expressed in Escherichia coli. Protein Expr Purif. 69(2): 186-90.