Datasheet for ABIN1889431

REG4 ELISA Kit

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Overview

Quantity:	96 tests
Target:	REG4
Binding Specificity:	AA 23-158
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human REG-4
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: D23-P158
Specificity:	Expression system for standard: E.coli Immunogen sequence: D23-P158
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	REG4
Alternative Name:	REG4 (REG4 Products)
Background:	Protein Function: Calcium-independent lectin displaying mannose-binding specificity and able to maintain carbohydrate recognition activity in an acidic environment. May be involved in inflammatory and metaplastic responses of the gastrointestinal epithelium. . Background: Regenerating islet-derived protein 4 is a protein that in humans is encoded by the REG4 gene. It is mapped to 1p12. REG-4 gene contains 6 exons and that the exon structure is preserved among members of the REG gene family. This gene is able to maintain carbohydrate recognition activity in an acidic environment. REG-4 expression was significantly upregulated by inflammation and tissue injury associated with active Crohn disease and ulcerative colitis, and most of the colorectal tumors overexpressing REG-4 are mucinous tumors or neuroendocrine tumors. Synonyms: Regenerating islet-derived protein 4,REG-4,Gastrointestinal secretory protein,REG-like protein,Regenerating islet-derived protein IV,Reg IV,REG4,GISP, RELP, Full Gene Name: Regenerating islet-derived protein 4 Cellular Localisation: Secreted.
Gene ID:	83998
UniProt:	Q9BYZ8

Application Details

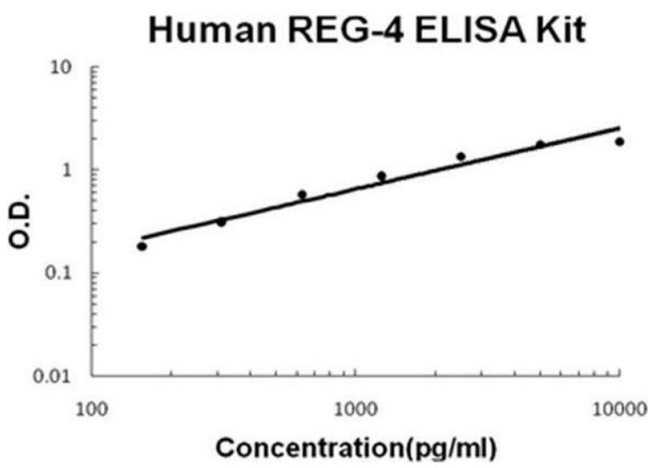
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Contains 1 C-type lectin domain. Tissue Specificity: Highly expressed in the gastrointestinal tract including the duodenum, jejunum, ileum, ileocecum, appendix, descending colon, pancreas and small intestine. Weakly expressed in normal colon and stomach. Strongly expressed in most colorectal tumors than in

Application Details

	normal colon. Preferentially expressed in mucinous tumors and in some cases neuro-endocrine tumors. Expressed in mucus-secreting cells and enterocyte-like cells. In small intestine expressed at the basal perinuclear zone of goblet cells. .
Plate:	Pre-coated
Protocol:	human REG-4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for REG-4 has been precoated onto 96-well plates. Standards(E.coli, D23-P158) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for REG-4 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human REG-4 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human REG-4 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human REG-4 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 1558, Standard deviation: 53, CV(%): 3.4 • Sample 2: n=16, Mean(pg/ml): 3652, Standard deviation: 200.86, CV(%): 5.5 • Sample 3: n=16, Mean(pg/ml): 6359, Standard deviation: 305.2, CV(%): 4.8, • Sample 1: n=24, Mean(pg/ml): 1758, Standard deviation: 79.11, CV(%): 4.5 • Sample 2: n=24, Mean(pg/ml): 3590, Standard deviation: 240.53, CV(%): 6.7 • Sample 3: n=24, Mean(pg/ml): 6125, Standard deviation: 361, CV(%): 5.9
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human REG-4 PicoKine ELISA Kit standard curve