Datasheet for ABIN1889394

TFF1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	TFF1
Binding Specificity:	AA 25-84
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human TFF1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: E25-F84
Specificity:	Expression system for standard: E.coli Immunogen sequence: E25-F84
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:	TFF1
Alternative Name:	TFF1 (TFF1 Products)
Background:	Protein Function: Stabilizer of the mucous gel overlying the gastrointestinal mucosa that provides a physical barrier against various noxious agents. May inhibit the growth of calcium oxalate crystals in urine. . Background: TFF1(Trefoil factor 1), also known as pS2, is a protein that in humans is encoded by the TFF1 gene. Members of the trefoil family are characterized by having at least one copy of the trefoil motif, a 40-amino acid domain that contains three conserved disulfides. They are stable secretory proteins expressed in gastrointestinal mucosa. Their functions are not defined, but they may protect the mucosa from insults, stabilize the mucus layer, and affect healing of the epithelium. It is found that TFF1 in normal human urine inhibited the growth of calcium oxalate crystals. Urinary TFF1 showed an inhibitory potency similar to that of nephrocalcin, and inhibition was dose dependent and inhibited by TFF1 antisera, particularly by antisera directed to the TFF1 C terminus. Concentrations and relative amounts of TFF1 in the urine of patients with idiopathic calcium oxalate kidney stones were significantly less than those found in controls. This gene, which is expressed in the gastric mucosa, has also been studied because of its expression in human tumors. This gene and two other related trefoil family member genes are found in a cluster on chromosome 21. Synonyms: Trefoil factor 1,Breast cancer estrogen-inducible protein,PNR-2,Polypeptide P1.A,hP1.A,Protein pS2,TFF1,BCEI, PS2, Full Gene Name: Trefoil factor 1 Cellular Localisation: Secreted.
Gene ID:	7031
UniProt:	P04155
Pathways:	EGFR Signaling Pathway

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 P-type (trefoil) domain. Tissue Specificity: Found in stomach, with highest levels in the upper gastric mucosal cells (at protein level). Detected in goblet cells of the small and large intestine and rectum, small submucosal glands in the esophagus, mucous acini of the sublingual gland, submucosal glands of the trachea, and epithelial cells lining the exocrine pancreatic ducts but not in the remainder of the pancreas (at protein level). Scattered expression is detected in the epithelial cells of the gallbladder and submucosal glands of the vagina, and weak expression is observed in the bronchial goblet cells of the pseudostratified epithelia in the respiratory system (at protein level). Detected in urine (at protein level). Strongly expressed in breast cancer but at low levels in normal mammary tissue. It is regulated by estrogen in MCF-7 cells. Strong expression found in normal gastric mucosa and in the regenerative tissues surrounding ulcerous lesions of gastrointestinal tract, but lower expression found in gastric cancer (at protein level). .
Plate:	Pre-coated
Protocol:	human TFF1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TFF1 has been precoated onto 96-well plates. Standards(E.coli, E25-F84) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TFF1 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 TFF1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human TFF1 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, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human TFF1 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 92, Standard deviation: 3.5, CV(%): 3.8 • Sample 2: n=16, Mean(pg/ml): 332, Standard deviation: 14.94, CV(%): 4.5 • Sample 3: n=16, Mean(pg/ml): 585, Standard deviation: 32.76, CV(%): 5.6, • Sample 1: n=24, Mean(pg/ml): 103, Standard deviation: 4.84, CV(%): 4.7

Application Details

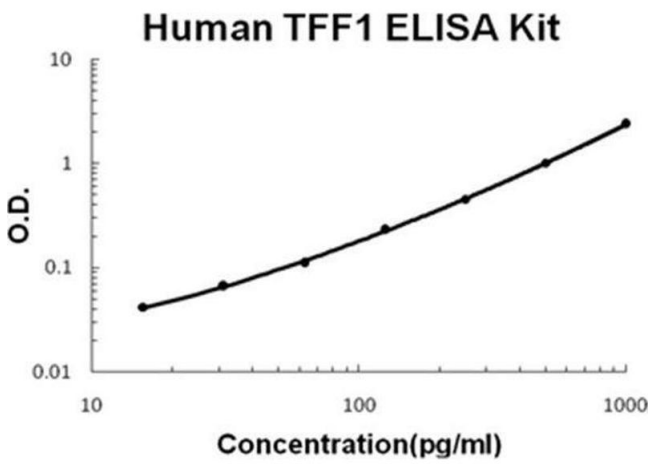
- Sample 2: n=24, Mean(pg/ml): 310, Standard deviation: 16.43, CV(%): 5.3
- Sample 3: n=24, Mean(pg/ml): 605, Standard deviation: 38.72, CV(%): 6.4

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

Images



ELISA

Image 1. Human TFF1 PicoKine ELISA Kit standard curve