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# **Trefoil Factor 2 ELISA Kit**





### Overview

Quantity:	96 tests
Target:	Trefoil Factor 2 (TFF2)
Binding Specificity:	AA 24-129
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	7.8-500 pg/mL
Minimum Detection Limit:	7.8 pg/mL
Application:	ELISA

## **Product Details**

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human TFF2
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: E24-Y129
Specificity:	Expression system for standard: NSO Immunogen sequence: E24-Y129
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:	Trefoil Factor 2 (TFF2)
Alternative Name:	TFF2 (TFF2 Products)
Background:	Protein Function: Inhibits gastrointestinal motility and gastric acid secretion. Could function as
	a structural component of gastric mucus, possibly by stabilizing glycoproteins in the mucus ge
	through interactions with carbohydrate side chains (By similarity).
	Background: Trefoil factor 2, also known as SP or SML1, is a protein that in humans is encoded
	by the TFF2 gene. This gene belongs to trefoil family, and members of the trefoil family may
	protect the mucosa from insults, stabilize the mucus layer, and affect healing of the epithelium
	This gene is mapped to 21q22.3. TFF2 gene consists of 4 exons spanning 5.1 kb, with exons 2
	and 3 encoding 1 trefoil domain each, and it is the only gene encoding 2 TFF-domains on
	separate exons. It has been found that the distribution of TFF2 and pS2 suggests involvement
	in repair-enhancing mechanisms.
	Synonyms: Trefoil factor 2,Spasmolysin,Spasmolytic polypeptide,SP,TFF2,SML1,
	Full Gene Name: Trefoil factor 2
	Cellular Localisation: Secreted.
Gene ID:	7032
UniProt:	Q03403
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 2 P-type (trefoil) domains.
	Tissue Specificity: Stomach.
Plate:	Pre-coated
Protocol:	human TFF2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay

technology. A monoclonal antibody from mouse specific for TFF2 has been precoated onto 96-well plates. Standards(NSO, E24-Y129) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TFF2 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 TFF2 amount of sample captured in plate.

### Assay Procedure:

Aliquot 0.1 mL per well of the 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL, 7.8pg/mL human TFF2 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 TFF2 standard solution and each sample be measured in duplicate.

### Assay Precision:

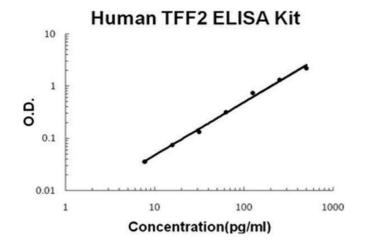
- Sample 1: n=16, Mean(pg/ml): 62, Standard deviation: 2.3, CV(%): 3.7
- Sample 2: n=16, Mean(pg/ml): 126, Standard deviation: 5.3, CV(%): 4.2
- Sample 3: n=16, Mean(pg/ml): 255, Standard deviation: 13.77, CV(%): 5.4,
- Sample 1: n=24, Mean(pg/ml): 58, Standard deviation: 2.67, CV(%): 4.6
- Sample 2: n=24, Mean(pg/ml): 133, Standard deviation: 7.85, CV(%): 5.9
- Sample 3: n=24, Mean(pg/ml): 263, Standard deviation: 17.62, CV(%): 6.7

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 TFF2 PicoKine ELISA Kit standard curve