

Datasheet for ABIN2859245 **TGFBR3 ELISA Kit**



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1 Image

Overview

Quantity:	96 tests
Target:	TGFBR3
Binding Specificity:	AA 21-781
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 TGFBR3
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: G21-D781
Specificity:	NSO, G21-D781
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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: TGFBR3

Alternative Name: TGFBR3 ([TGFBR3 Products](#))

Background: Protein Function: Binds to TGF-beta. Could be involved in capturing and retaining TGF-beta for presentation to the signaling receptors.

Background: Betaglycan also known as Transforming growth factor beta receptor III (TGFBR3), is a cell- surfacechondroitin sulfate / heparan sulfate proteoglycan >300 kDa in molecular weight. Betaglycan binds to various members of the TGF-beta superfamily of ligands via its core protein, and bFGF via its heparan sulfate chains. It is not involved directly in TGF-beta signal transduction but by binding to various member of the TGF-beta superfamily at the cell surface it acts as a reservoir of ligand for TGF-beta receptors. By cDNA array and immunohistochemistry analyses, it is found that TGFBR3 expression is lost in most breast cancers examined in association with loss of heterozygosity of the TGFBR3 locus. TGFBR3 expression decreased during breast cancer progression, and low levels predicted decreased recurrence-free survival in patients. Loss of TGFBR3 through allelic imbalance is a frequent genetic event during breast cancer development that increases metastatic potential. Also, TGFBR3 can localize transformation in the heart and play an essential, nonredundant role in TGF-beta signaling.

Synonyms: Transforming growth factor beta receptor type 3, TGF-beta receptor type 3, TGFR-3, Betaglycan, Transforming growth factor beta receptor III, TGF-beta receptor type III, TGFBR3,

Full Gene Name: Transforming growth factor beta receptor type 3

Cellular Localisation: Secreted. Secreted, extracellular space. Cell membrane, Single-pass type I membrane protein . Exists both as a membrane-bound form and as soluble form in serum and in the extracellular matrix.

Gene ID: 7049

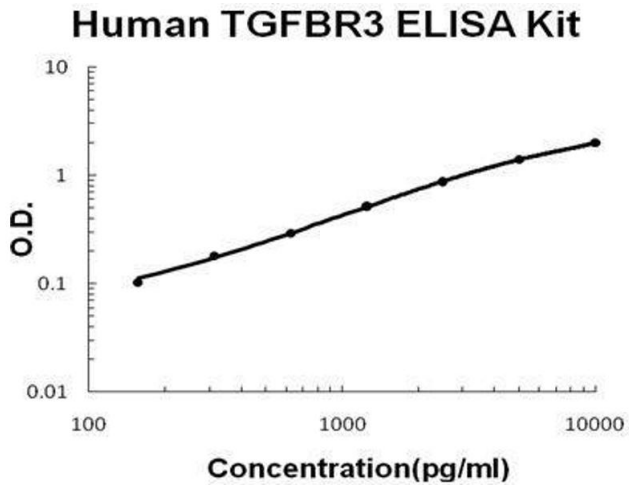
UniProt: [Q03167](#)

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.
Plate:	Pre-coated
Protocol:	human TGFBR3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TGFBR3 has been precoated onto 96-well plates. Standards(NSO,G21-D781) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TGFBR3 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 TGFBR3 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 TGFBR3 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 TGFBR3 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 1.15, Standard deviation: 0.051, CV(%): 4.5• Sample 2: n=16, Mean(ng/ml): 2.52, Standard deviation: 0.108, CV(%): 4.3• Sample 3: n=16, Mean(ng/ml): 5.81, Standard deviation: 0.284, CV(%): 4.9• Sample 1: n=24, Mean(ng/ml): 1.63, Standard deviation: 0.109, CV(%): 6.7• Sample 2: n=24, Mean(ng/ml): 2.87, Standard deviation: 0.169, CV(%): 5.9• Sample 3: n=24, Mean(ng/ml): 5.66, Standard deviation: 0.401, CV(%): 7.1
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 TGFBFR3 PicoKine ELISA Kit standard curve