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Datasheet for ABIN1889330

TGFB2 ELISA Kit

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Overview

Quantity:	96 tests
Target:	TGFB2
Binding Specificity:	AA 303-414
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of activated Human TGF-beta 2
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A303-S414
Specificity:	Expression system for standard: NSO Immunogen sequence: A303-S414
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Predicted Reactivity:	Bovine,Canine,Chicken,Horse,Monkey,Rabbit
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:	TGFB2
Alternative Name:	TGFB2 (TGFB2 Products)
Background:	<p>Protein Function: TGF-beta 2 has suppressive effects on interleukin-2 dependent T-cell growth.</p> <p>Background: Transforming growth factor-beta 2(TGF-beta 2) is a secreted protein known as a cytokine that performs many cellular functions and has a vital role during embryonic development. This gene is mapped to 1q41. It is an extracellular glycosylated protein. It is known to suppress the effects of interleukin dependent T-cell tumors. TGF-beta 2 is present at elevated levels in the aqueous humor of patients with primary open angle glaucoma(POAG). Studies have shown that TGF-beta 2 influences cultured trabecular meshwork cells, and it reduced outflow facility when perfused into cultured human anterior segments. In POAG, elevated expression of Gremlin by TM cells inhibited BMP4 antagonism of TGF-beta 2 and led to increased extracellular matrix deposition and elevated IOP.</p> <p>Synonyms: Transforming growth factor beta-2,TGF-beta-2,BSC-1 cell growth inhibitor,Cetermin,Glioblastoma-derived T-cell suppressor factor,G-TSF,Polyergin,Latency-associated peptide,LAP,TGFB2,</p> <p>Full Gene Name: Transforming growth factor beta-2</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	7042
UniProt:	P61812
Pathways:	Cell-Cell Junction Organization , Production of Molecular Mediator of Immune Response , Protein targeting to Nucleus

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well
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Application Details

assay was recommended for both standard and sample testing.

Comment: Sequence similarities: Belongs to the TGF-beta family.

Plate: Pre-coated

Protocol: human TGF-beta 2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TGF-beta 2 has been precoated onto 96-well plates. Standards(NSO, A303-S414) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TGF-beta 2 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 TGF-beta 2 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human TGF-beta 2 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 activated human cell culture supernates, serum or plasma(heparin, EDTA, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human TGF-beta 2 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 221, Standard deviation: 13.7, CV(%): 6.2
- Sample 2: n=16, Mean(pg/ml): 564, Standard deviation: 13.6, CV(%): 5.6
- Sample 3: n=16, Mean(pg/ml): 1145, Standard deviation: 46.9, CV(%): 4.1,
- Sample 1: n=24, Mean(pg/ml): 236, Standard deviation: 15.8, CV(%): 6.7
- Sample 2: n=24, Mean(pg/ml): 576, Standard deviation: 33.41, CV(%): 5.8
- Sample 3: n=24, Mean(pg/ml): 1095, Standard deviation: 70.1, 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

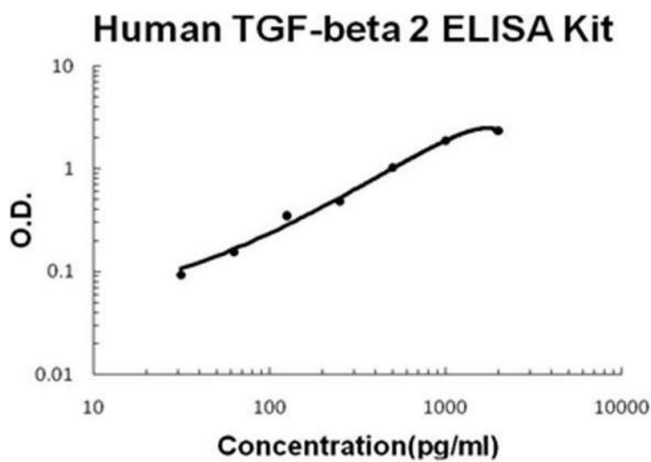
Expiry Date: 12 months

Publications

Product cited in: Song, Zhang, Zhang, Du, Guo, Kuang, Wang, Wu, Zou, Zou, Lv, Wang: "A microfluidic device for studying chemotaxis mechanism of bacterial cancer targeting." in: **Scientific reports**, Vol. 8, Issue 1, pp. 6394, (2018) ([PubMed](#)).

Li, Liu, Shen, Wang, Chen, Xu, Wen: "MicroRNA-26a modulates transforming growth factor beta-1-induced proliferation in human fetal lung fibroblasts." in: **Biochemical and biophysical research communications**, Vol. 454, Issue 4, pp. 512-517, (2014) ([PubMed](#)).

Images



ELISA

Image 1. Human TGF-beta 2 PicoKine ELISA Kit standard curve