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Datasheet for ABIN1889371

TGFBI ELISA Kit

1 Image

1 Publication

Overview

Quantity:	96 tests
Target:	TGFBI
Binding Specificity:	AA 24-683
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human TGFBI/betaIG-H3
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: G24-H683
Specificity:	Expression system for standard: NSO Immunogen sequence: G24-H683
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: TGFBI

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

Background: Protein Function: Binds to type I, II, and IV collagens. This adhesion protein may play an important role in cell-collagen interactions. In cartilage, may be involved in endochondral bone formation.

Background: Transforming growth factor, beta-induced, 68 kDa, also known as TGFBI (initially called BIGH3, BIG-H3), is a protein which in humans is encoded by the TGFBI gene. It is mapped to 5q31.1. This gene encodes an RGD-containing protein that binds to type I, II and IV collagens. The RGD motif is found in many extracellular matrix proteins modulating cell adhesion and serves as a ligand recognition sequence for several integrins. This protein plays a role in cell-collagen interactions and may be involved in endochondral bone formation in cartilage. The protein is induced by transforming growth factor-beta and acts to inhibit cell adhesion.

Synonyms: Transforming growth factor-beta-induced protein ig-h3, Beta ig-h3, Kerato-epithelin, RGD-containing collagen-associated protein, RGD-CAP, TGFBI, BIGH3,

Full Gene Name: Transforming growth factor-beta-induced protein ig-h3

Cellular Localisation: Secreted, extracellular space, extracellular matrix. May be associated both with microfibrils and with the cell surface.

Gene ID: 7045

UniProt: [Q15582](#)

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 EMI domain.

Tissue Specificity: Highly expressed in the corneal epithelium. .

Application Details

Plate:	Pre-coated
Protocol:	human TGFBI ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TGFBI has been precoated onto 96-well plates. Standards(NSO, G24-H683) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TGFBI 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 TGFBI amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human TGFBI 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 TGFBI standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 672, Standard deviation: 30.24, CV(%): 4.5• Sample 2: n=16, Mean(pg/ml): 1913, Standard deviation: 89.9, CV(%): 4.7• Sample 3: n=16, Mean(pg/ml): 2844, Standard deviation: 150.7, CV(%): 5.3,• Sample 1: n=24, Mean(pg/ml): 764, Standard deviation: 39.7, CV(%): 5.2• Sample 2: n=24, Mean(pg/ml): 1860, Standard deviation: 106.02, CV(%): 5.7• Sample 3: n=24, Mean(pg/ml): 2927, Standard deviation: 184.4, CV(%): 6.3
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

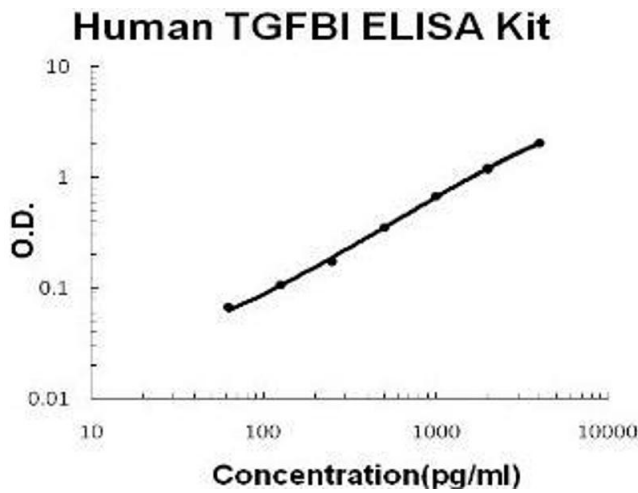
Product cited in:	Li, Hu, Wang, Zhang, Zhou, Yang, Li, Xiong, Liu, Li, Wu, Zheng: "Autophagy-dependent generation of Axin2+ cancer stem-like cells promotes hepatocarcinogenesis in liver cirrhosis." in:
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Oncogene, Vol. 36, Issue 48, pp. 6725-6737, (2017) ([PubMed](#)).

Yang, Wu, Feng, Huang, Liu, Liu, Chen: "Vitamin C plus hydrogel facilitates bone marrow stromal cell-mediated endometrium regeneration in rats." in: **Stem cell research & therapy**, Vol. 8, Issue 1, pp. 267, (2017) ([PubMed](#)).

Secchiero, Corallini, Zavan, Tripodo, Vindigni, Zauli: "Mesenchymal stem cells display hepatoprotective activity in lymphoma bearing xenografts." in: **Investigational new drugs**, Vol. 30, Issue 2, pp. 803-7, (2012) ([PubMed](#)).

Images



ELISA

Image 1. Human TGFBI/beta IG-H3 PicoKine ELISA Kit standard curve