



Datasheet for ABIN2859270
IGFBP4 ELISA Kit



[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	IGFBP4
Binding Specificity:	AA 22-258
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	500-32000 pg/mL
Minimum Detection Limit:	500 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IGFBP4
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: D22-E258
Specificity:	NSO, D22-E258
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<20pg/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: IGFBP4

Alternative Name: IGFBP4 ([IGFBP4 Products](#))

Background: Protein Function: IGF-binding proteins prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs with their cell surface receptors.

Background: Insulin-like growth factor-binding protein 4 is a protein that in humans is encoded by the IGFBP4 gene. This gene is a member of the insulin-like growth factor binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a thyroglobulin type-I domain. The protein binds both insulin-like growth factors (IGFs) I and II and circulates in the plasma in both glycosylated and non-glycosylated forms. Binding of this protein prolongs the half-life of the IGFs and alters their interaction with cell surface receptors. In addition, IGFBP-4 is a unique protein and it consistently inhibits several cancer cells in vivo and in vitro. Its inhibitory action has been shown in vivo in prostate and colon. It is secreted by all colon cancer cells.

Synonyms: Insulin-like growth factor-binding protein 4, IBP-4, IGF-binding protein 4, IGFBP-4, IGFBP4, IBP4,

Full Gene Name: Insulin-like growth factor-binding protein 4

Cellular Localisation: Secreted.

Gene ID: 3487

UniProt: [P22692](#)

Pathways: [WNT Signaling](#), [Myometrial Relaxation and Contraction](#), [Regulation of Carbohydrate Metabolic Process](#)

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

Application Details

Protocol: human IGFBP4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IGFBP4 has been precoated onto 96-well plates. Standards (NSO, D22-E258) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IGFBP4 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 IGFBP4 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 32000pg/mL, 16000pg/mL, 8000pg/mL, 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL human IGFBP4 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 IGFBP4 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 846, Standard deviation: 43.99, CV(%): 5.2
- Sample 2: n=16, Mean(pg/ml): 3152, Standard deviation: 179.66, CV(%): 5.7
- Sample 3: n=16, Mean(pg/ml): 12519, Standard deviation: 688.54, CV(%): 5.5,
- Sample 1: n=24, Mean(pg/ml): 755, Standard deviation: 49.83, CV(%): 6.6
- Sample 2: n=24, Mean(pg/ml): 3646, Standard deviation: 258.86, CV(%): 7.1
- Sample 3: n=24, Mean(pg/ml): 13698, Standard deviation: 876.67, CV(%): 6.4

Restrictions: For Research Use only

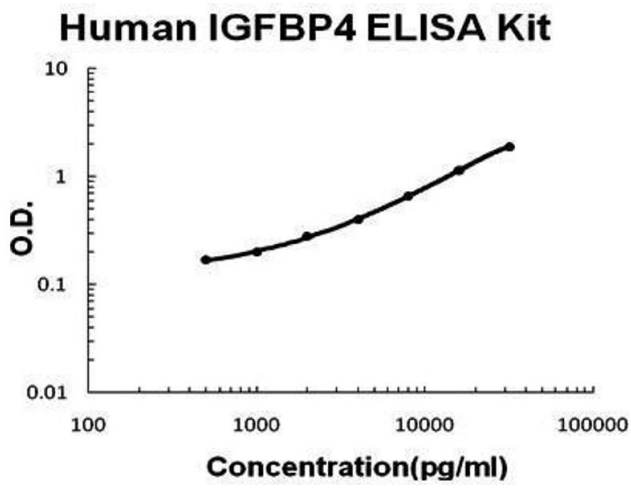
Handling

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



ELISA

Image 1. Human IGFBP4 PicoKine ELISA Kit standard curve