

Datasheet for ABIN411290

**IGFBP3 ELISA Kit**[Go to Product page](#)**1** Image**2** Publications

## Overview

Quantity:	96 tests
Target:	IGFBP3
Binding Specificity:	AA 28-291
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

## Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IGFBP-3
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: A28Q-291
Specificity:	Expression system for standard: NSO Immunogen sequence: A28Q-291
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: IGFBP3

Alternative Name: IGFBP3 ([IGFBP3 Products](#))

Background: Insulin-like growth factor(IGF)-binding protein-3(IGFBP-3) is a major determinant of circulating levels of the IGFs and is clinically useful for the evaluation of GH deficiency and for predicting the response to GH treatment. The circulating level of IGFBP-3 is inversely related to the risk of several common cancers, and that antiproliferative agents such as antiestrogens and retinoids act in part by up-regulating IGFBP-3 gene(IGFBP3) expression. Insulin-like growth factor-binding protein(IGFBP)-3, well characterized as the carrier of insulin-like growth factor(IGF), has been reported to have intrinsic bioactivity that is independent of IGF binding. IGFBP-3 has an IGF-independent, antiproliferative effect in undifferentiated and early differentiated but not in terminally differentiated chondrocytes. IGFBP-3 possesses both growth-inhibitory and potentiating effects on cells that are independent of IGF action and are mediated through specific. IGFBP-3 binding proteins/receptors locate at the cell membrane, cytosol, or nuclear compartments and in the extracellular matrix. IGFBP3 is also located on chromosome 7. The standard product used in this kit is recombinant human IGFBP-3, consisting of 265 amino acids with the molecular mass of 29 kDa. As a result of glycosylation, the molecular mass is 41KDa.

Synonyms: cDNA FLJ31712 fis, clone NT2RI2006445, highly similar to Insulin-like growth factor-binding protein 3 ,cDNA FLJ34387 fis, clone HCHON1000191, highly similar to Insulin-like growth factor-binding protein 3 ,cDNA FLJ38550 fis, clone HCHON2002123, highly similar to Insulin-like growth factor-binding protein 3 ,cDNA PSEC0177 fis, clone OVARC1000287, highly similar to Insulin-like growth factor-binding protein 3 ,

Full Gene Name: insulin-like growth factor binding protein 3

Gene ID: 3486

UniProt: [B3KPF0](#)

Pathways: [Myometrial Relaxation and Contraction](#), [Regulation of Muscle Cell Differentiation](#), [Skeletal](#)

## Target Details

Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process, Autophagy, Smooth Muscle Cell Migration, Growth Factor Binding

## 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 IGFBP-3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IGFBP-3 has been precoated onto 96-well plates. Standards(NSO, A28Q-291) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IGFBP-3 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 IGFBP-3 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 313pg/mL, 156pg/mL human IGFBP-3 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 IGFBP-3 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(ng/ml): 1.12, Standard deviation: 0.058, CV(%): 5.2</li><li>• Sample 2: n=16, Mean(ng/ml): 3.41, Standard deviation: 0.198, CV(%): 5.8</li><li>• Sample 3: n=16, Mean(ng/ml): 5.23, Standard deviation: 0.241, CV(%): 4.6,</li><li>• Sample 1: n=24, Mean(ng/ml): 1.24, Standard deviation: 0.077, CV(%): 6.2</li><li>• Sample 2: n=24, Mean(ng/ml): 3.26, Standard deviation: 0.231, CV(%): 7.1</li><li>• Sample 3: n=24, Mean(ng/ml): 6.34, Standard deviation: 0.552, CV(%): 8.7</li></ul>
Restrictions:	For Research Use only

## Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C, 4 °C

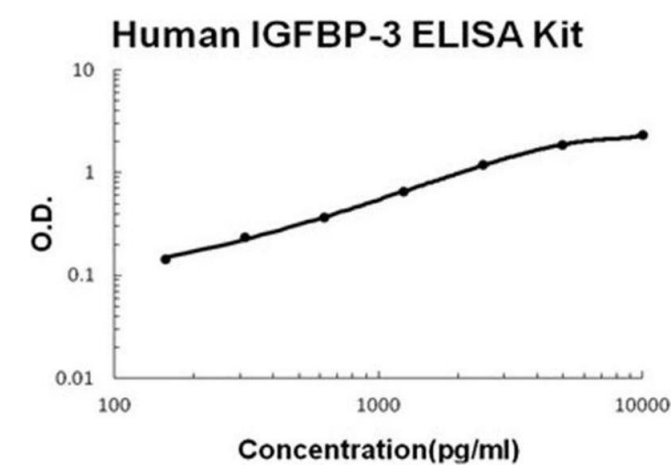
Handling

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:	Wang, Lee, Chou, Yang, Wei, Chen, Yao, Hsu, Zhu, Ying, Ye, Wang, Lim, Xia, Ko, Liu, Liu, Wu, Wang, Li, Prakash, Katz, Kang, Kim, Fleming, Fogelman, Javle, Maitra, Hung: "Angiogenin/Ribonuclease 5 Is an EGFR Ligand and a Serum Biomarker for Erlotinib Sensitivity in Pancreatic Cancer." in: <b>Cancer cell</b> , Vol. 33, Issue 4, pp. 752-769.e8, (2019) ( <a href="#">PubMed</a> ).
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Images



**ELISA**

**Image 1.** Human IGFBP-3 PicoKine ELISA Kit standard curve