

Datasheet for ABIN1672823

BMP7 ELISA Kit[Go to Product page](#)**1** Image**5** Publications

Overview

Quantity:	96 tests
Target:	BMP7
Binding Specificity:	AA 293-431
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 Human BMP-7
Brand:	PicoKine™
Sample Type:	Osseous Tissue, Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: S293-H431
Specificity:	Expression system for standard: NSO Immunogen sequence: S293-H431
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:	BMP7
Alternative Name:	BMP7 (BMP7 Products)
Background:	<p>Background: Bone morphogenetic protein 7 or BMP7(also known as osteogenic protein-1 or OP-1) is a protein that in humans is encoded by the BMP7 gene.The protein encoded by this gene is a member of the TGF-beta superfamily. Like other members of the bone morphogenetic protein family of proteins, it plays a key role in the transformation of mesenchymal cells into bone and cartilage. It is inhibited by noggin and a similar protein, chordin, which are expressed in the Spemann-Mangold Organizer. BMP7 may be involved in bone homeostasis. It is expressed in the brain, kidneys and bladder.</p> <p>Synonyms: Bone morphogenetic protein 7 (Osteogenic protein 1), isoform CRA_b ,cDNA FLJ78019, highly similar to Homo sapiens bone morphogenetic protein 7 (osteogenic protein 1), mRNA ,cDNA, FLJ92758, Homo sapiens bone morphogenetic protein 7 (osteogenic protein 1)(BMP7), mRNA ,BMP7 ,hCG_40100 ,</p> <p>Full Gene Name: bone morphogenetic protein 7</p>
Gene ID:	655
UniProt:	A8K571
Pathways:	Steroid Hormone Mediated Signaling Pathway , Stem Cell Maintenance

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 BMP-7 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for BMP-7 has been precoated onto 96-well plates. Standards(NSO, S293-H431) and test samples are added to the wells, a

Application Details

biotinylated detection polyclonal antibody from goat specific for BMP-7 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 BMP-7 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 BMP-7 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 bone tissue, cell culture supernates, serum, plasma((heparin, EDTA) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human BMP-7 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 342, Standard deviation: 19.8, CV(%): 5.8
- Sample 2: n=16, Mean(pg/ml): 765, Standard deviation: 42.8, CV(%): 5.6
- Sample 3: n=16, Mean(pg/ml): 1108, Standard deviation: 57.6, CV(%): 5.2,
- Sample 1: n=24, Mean(pg/ml): 372, Standard deviation: 30.5, CV(%): 8.2
- Sample 2: n=24, Mean(pg/ml): 780, Standard deviation: 62.4, CV(%): 8
- Sample 3: n=24, Mean(pg/ml): 1265, Standard deviation: 98.7, CV(%): 7.8

Restrictions: For Research Use only

Handling

Handling Advice: Avoid multiple freeze-thaw cycles.

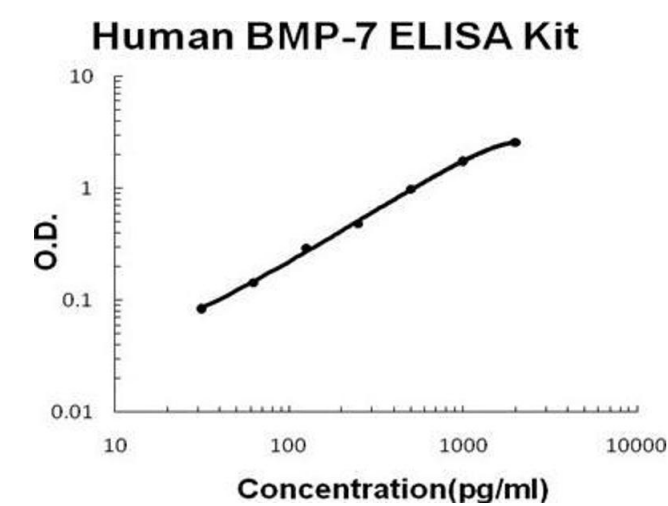
Storage: -20 °C, 4 °C

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: Benli, Ayyildiz, Cirrik, Koktürk, Cirakoglu, Noyan, Ayyildiz, Germiyanoglu: "The effect of tadalafil therapy on kidney damage caused by sepsis in a polymicrobial septic model induced in rats: a biochemical and histopathological study." in: **International braz j urol : official journal of the Brazilian Society of Urology**, Vol. 43, Issue 2, pp. 345-355, (2017) ([PubMed](#)).



ELISA

Image 1. Human BMP-7 PicoKine ELISA Kit standard curve