

Datasheet for ABIN921053

BMP5 ELISA Kit[Go to Product page](#)**1** Image

Overview

Quantity:	96 tests
Target:	BMP5
Binding Specificity:	AA 317-454
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 BMP-5
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Osseous Tissue
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A317-H454
Specificity:	Expression system for standard: NSO Immunogen sequence: A317-H454
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Predicted Reactivity:	Bovine,Canine,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:	BMP5
Alternative Name:	BMP5 (BMP5 Products)
Background:	<p>Protein Function: Induces cartilage and bone formation.</p> <p>Background: Bone morphogenetic protein 5 is a protein that in humans is encoded by the BMP5 gene.^{1,2,3} The protein encoded by this gene is member of the TGFbeta superfamily. Bone morphogenetic proteins are known for their ability to induce bone and cartilage development. BMP5 may play a role in certain cancers. Like other BMP's BMP5 is inhibited by chordin and noggin. It is expressed in the trabecular meshwork and optic nerve head and may have a role in the development and normal function. It is also expressed in the lung and liver. BMP-5 is mapped on human chromosome 6.⁴ The standard used in this kit is recombinant BMP-5 with the monomer molecular mass of 18KDa.</p> <p>Synonyms: Bone morphogenetic protein 5,BMP-5,BMP5,</p> <p>Full Gene Name: Bone morphogenetic protein 5</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	653
UniProt:	P22003
Pathways:	Regulation of Hormone Metabolic Process , Regulation of Hormone Biosynthetic 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.
Comment:	<p>Sequence similarities: Belongs to the TGF-beta family.</p> <p>Tissue Specificity: Expressed in the lung and liver.</p>
Plate:	Pre-coated

Application Details

Protocol: human BMP-5 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for BMP-5 has been precoated onto 96-well plates. Standards(NSO, A317-H454) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for BMP-5 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-5 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, 312pg/mL, 156pg/mL human BMP-5 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 bone tissue to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human BMP-5 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 1.23, Standard deviation: 0.059, CV(%): 4.8
- Sample 2: n=16, Mean(ng/ml): 3.46, Standard deviation: 0.180, CV(%): 5.2
- Sample 3: n=16, Mean(ng/ml): 6.92, Standard deviation: 0.388, CV(%): 5.6,
- Sample 1: n=24, Mean(ng/ml): 1.38, Standard deviation: 0.073, CV(%): 5.3
- Sample 2: n=24, Mean(ng/ml): 3.57, Standard deviation: 0.203, CV(%): 5.7
- Sample 3: n=24, Mean(ng/ml): 6.85, Standard deviation: 0.425, CV(%): 6.2

Restrictions: For Research Use only

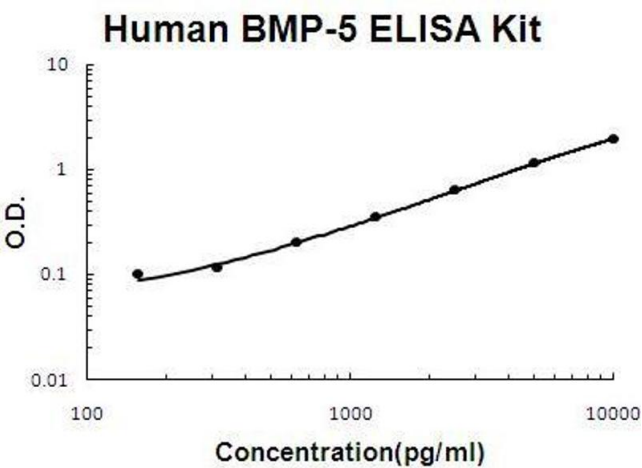
Handling

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 BMP-5 PicoKine ELISA Kit standard curve