Datasheet for ABIN1112567

BMP5 ELISA Kit

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Overview

Quantity:	96 tests
Target:	BMP5
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:	For quantitative detection of BMP-5 in human serum, plasma, body fluids, tissue lysates or cell culture supernates.
Sample Type:	Cell Culture Supernatant, Plasma, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 10 pg/mL
Components:	1. One 96-well plate pre-coated with anti-human BMP-5 antibody 2. Lyophilized BMP-5 standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Human BMP-5 antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	BMP5
Alternative Name:	BMP-5 (BMP5 Products)
Background:	Bone morphogenetic protein 5 (BMP-5) is a member of the transforming growth factor-beta superfamily of regulatory molecules. Bone morphogenetic proteins were originally identified by the ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site, and known for their ability to induce bone and cartilage development. BMP-5 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. It may play a role in certain cancers. Like other BMP's BMP5 is inhibited by chordin and noggin. This protein also act as an important signaling molecule within the trabecular meshwork and optic nerve head, and may play a potential role in glaucoma pathogenesis.
Pathways:	Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti- BMP-5 polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti- BMP-5 polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the BMP-5 amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of BMP-5 can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to

Application Details

	wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.
Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Tissue lysate or body fluids, cell culture supernate: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 1000 × g for 10 min. Analyze the serum immediately or aliquot and store at -20 °C . Plasma: Collect plasma with EDTA, heparin, citrate as the anticoagulant. Centrifuge for 15 min at 2-8 at 1500 x g within 30 min of collection. For eliminating the platelet effect, suggesting that further centrifugation for 10 min at 2-8°C at 10000 x g. Analyze immediately or aliquot and store frozen at -20 °C. Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN_3 can not be used as test sample preservative, since it is the inhibitor for HRP.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)