

Mouse BMP-4 PicoKine ELISA Kit | Bmp4 elisa kit

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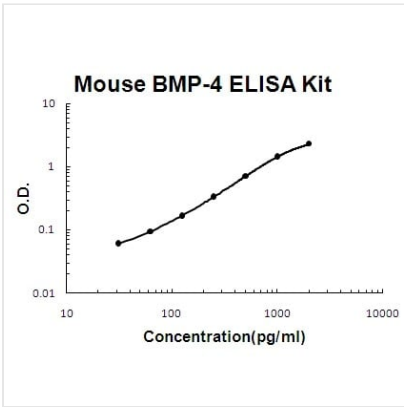
CATALOG # AAA46175	REACTIVITY Mouse
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PRODUCT SYNONYMS

BMP-4 PicoKine; Mouse BMP-4 PicoKine ELISA Kit; Bone morphogenetic protein 4; BMP 2B; BMP 4; BMP2B; BMP2B1; BOMPR4A; Bone morphogenetic protein 2B; DVR4; OTTMUSP00000021065; OTTMUSP00000021066; ZYME; bone morphogenetic protein 4; Bmp4 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	Natural and recombinant mouse BMP-4
Sequence Length	408
Assay Range	31.2pg/ml-2000pg/ml
Sensitivity	<10pg/ml
Sample	For quantitative detection of mouse BMP-4 in bone tissue, cell culture supernates and serum.
Immunogen	CHO, S293-R408
Assay Procedure Step 1	Aliquot 0.1ml per well of the 2000pg/ml,1000pg/ml, 500pg/ml, 250pg/ml, 125pg/ml, 62.5pg/ml, 31.2pg/ml mouse BMP-4 standard solutions into the precoated 96-well plate. Add 0.1ml of the sample diluent buffer into the control well (Zero well). Add 0.1ml of each properly diluted sample of mouse bone tissue, cell culture supernates or serum to each empty well. It is recommended that each mouse BMP-4 standard solution and each sample be measured in duplicate.
Intra-Assay Precision	Inter-Assay Precision Sample 1 2 3 1 2 3 n 16 16 16 24 24 24 Mean(pg/ml) 160 556 1526 178 603 1789 Standard deviation 5.12 22.80 85.46 9.43 41.00 132.39 CV(%) 3.2 4.1 5.6 5.3 6.8 7.4
Sample Data	Concentration(pg/ml) 0 31.2 62.5 125 250 500 1000 2000 O.D. 0.045 0.06 0.094 0.165 0.333 0.706 1.437 2.283
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles.



Standard Curve (Sample)
Mouse BMP-4 PicoKine ELISA Kit standard curve

ADDITIONAL INFORMATION

Related Product Information for Bmp4 elisa kit	Principle of the assay: Mouse BMP-4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for BMP-4 has been precoated onto 96-well plates. Standards (Expression system for standard: CHO, Immunogen sequence: S293-R408) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for BMP-4 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 mouse BMP-4 amount of sample captured in plate. Background: Bone morphogenetic protein 4 is a protein that in humans is encoded by the BMP4 gene which is located to 14q22-q23. The protein encoded by this gene is a member of the bone morphogenetic protein family which is part of the transforming growth factor-beta superfamily. BMP4 is a polypeptide belonging to the TGF-beta superfamily of proteins. It, like other bone morphogenetic proteins, is involved in bone and cartilage development, specifically tooth and limb development and fracture repair. It has been shown to be involved in muscle development, bone mineralization, and uterine bud development. BMP4 has also been implicated in Fibrodysplasia Ossificans Progressiva in which it is underexpressed. In human embryonic development, BMP4 is a critical signaling molecule required for the early differentiation of the embryo and establishing of a dorsal-ventral axis. BMP4 is secreted from the dorsal portion of the notochord, and it acts in concert with sonic hedgehog (released from the ventral portion of the notochord) to establish a dorsal-ventral axis for the differentiation of later structures. Also, BMP4 stimulates differentiation of overlying ectodermal tissue. Inhibition of the BMP4 signal (by chordin, noggin, or follistatin) causes the ectoderm to differentiate into the neural plate.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	939320322
NCBI GeneID	12159
NCBI Accession #	NP_001303289.1
NCBI GenBank Nucleotide #	NM_001316360.1
UniProt Accession #	P21275
Molecular Weight	46,497 Da
NCBI Official Full Name	bone morphogenetic protein 4 preproprotein
NCBI Official Synonym Full Names	bone morphogenetic protein 4
NCBI Official Symbol	Bmp4
NCBI Official Synonym Symbols	Bmp-4; Bmp2b; Bmp2b1; Bmp2b-1

NCBI Protein Information	bone morphogenetic protein 4
UniProt Protein Name	Bone morphogenetic protein 4
UniProt Gene Name	Bmp4
UniProt Synonym Gene Names	Bmp-4; Dvr-4; BMP-4; BMP-2B
UniProt Entry Name	BMP4_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/mouse-elisa-kits/bmp-4-picokine/46175>