

Human BMP-4 ELISA Kit | BMP4 elisa kit

Human BMP-4 PicoKine ELISA Kit

CATALOG #
AAA45212

REACTIVITY
Human

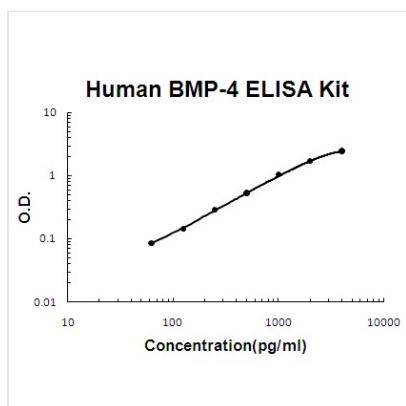
PRODUCT SYNONYMS

BMP-4; Human BMP-4 PicoKine ELISA Kit; Bone morphogenetic protein 4; bone morphogenetic protein 4; BMP 2B; BMP 4; BMP2B; BMP2B1; BOMPR4A; Bone morphogenetic protein 2B; DVR4; OTTMUSP00000021065; OTTMUSP00000021066; ZYME; BMP4 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant human BMP-4
Sequence Length	408
Samples	Bone tissue and cell culture supernates
Assay Type	Sandwich
Detection Range	62.5pg/ml-4000pg/ml
Sensitivity	< 4pg/ml
Intra-assay Precision	Intra-Assay Precision (Precision within an assay) Three samples of known concentration were tested on one plate to assess intra-assay precision.
Inter-assay Precision	Inter-Assay Precision (Precision between assays) Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

IMAGES



Standard Curve (Sample)

Human BMP-4 PicoKine ELISA Kit standard curve

ADDITIONAL INFORMATION

Related Product Information for BMP4 elisa kit

Principle of the assay: human BMP-4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for BMP-4 has been precoated onto 96-well plates. Standards(NSO, 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 human 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-q23.1, 2 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. 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. The standard product used in this kit is recombinant human BMP-4 with the molecular mass of 26KDa.

NCBI AND UNIPROT INFORMATION

NCBI GI #	115073
NCBI GeneID	652
UniProt Accession #	P12644; Q9UM80
Molecular Weight	46,555 Da
NCBI Official Full Name	Bone morphogenetic protein 4
NCBI Official Synonym Full Names	bone morphogenetic protein 4
NCBI Official Symbol	BMP4
NCBI Official Synonym Symbols	ZYME; BMP2B; OFC11; BMP2B1; MCOPS6
NCBI Protein Information	bone morphogenetic protein 4; BMP-4; BMP-2B; bone morphogenetic protein 2B
UniProt Protein Name	Bone morphogenetic protein 4
UniProt Gene Name	BMP4
UniProt Synonym Gene Names	BMP2B; DVR4; BMP-4; BMP-2B
UniProt Entry Name	BMP4_HUMAN

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/bmp4-human-elisa-kits/bmp-4/45212>