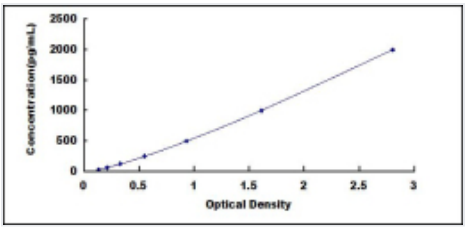
Bone Morphogenetic Protein 2 (BMP2) ELISA Kit for Rabbit

PRODUCT OVERVIEW

Product Name	Bone Morphogenetic Protein 2 (BMP2), ELISA Kit
Full Product Name	Rabbit Bone Morphogenetic Protein 2 (BMP2) ELISA Kit
Product Gene Name	BMP2 elisa kit
Product Synonym Names	BMP2A; BMP-2A; Hemochromatosis Modifier
Species Reactivity	Rabbit
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma, Tissue homogenatesand other biological fluids
Detection Range	31.2-2,000pg/mL
Sensitivity	13.4pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Bone Morphogenetic Protein 2 (BMP2). No significant cross-reactivity or interference between Bone Morphogenetic Protein 2 (BMP2) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	44,702 Da
OMIM	112261
3D Structure	ModBase 3D Structure for P12643
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Bone Morphogenetic Protein 2 (BMP2) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Bone Morphogenetic Protein 2 (BMP2) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
Product Categories/Family for BMP2 elisa kit	Developmental science; Bone metabolism
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.

Related Product Information for BMP2 elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Bone Morphogenetic Protein 2 (BMP2). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Bone Morphogenetic Protein 2 (BMP2). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Bone Morphogenetic Protein 2 (BMP2), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Bone Morphogenetic Protein 2 (BMP2) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of BMP2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BMP2 purchase	MBS2022382 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Bone Morphogenetic Protein 2 (BMP2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing BMP2. The ELISA analytical biochemical technique of the MBS2022382 kit is based on BMP2 antibody-BMP2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect BMP2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, BMP2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of BMP2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMP2. It may not necessarily be applicable to this product.

NCBI GI #	4557369
NCBI GeneID	650
NCBI Accession #	NP_001191.1
UniProt Primary Accession #	P12643
UniProt Related Accession #	P12643
GenBank Nucleotide #	NM_001200.2
NCBI Official Full Name	bone morphogenetic protein 2 preproprotein
NCBI Official Synonym Full Names	bone morphogenetic protein 2
NCBI Official Symbol	BMP2
NCBI Official Synonym Symbols	BDA2; BMP2A
UniProt Protein Name	Bone morphogenetic protein 2
UniProt Synonym Protein Names	Bone morphogenetic protein 2A; BMP-2A
Protein Family	Bone morphogenetic protein
UniProt Gene Name	BMP2
UniProt Synonym Gene Names	BMP2A; BMP-2; BMP-2A

UniProt Entry Name	BMP2_HUMAN
NCBI Protein Information	bone morphogenetic protein 2
NCBI Summary for BMP2	The protein encoded by this gene belongs to the transforming growth factor-beta (TGFB) superfamily. The encoded protein acts as a disulfide-linked homodimer and induces bone and cartilage formation. [provided by RefSeq, Jul 2008]
UniProt Comments for BMP2	Induces cartilage and bone formation (PubMed:3201241). Stimulates the differentiation of myoblasts into osteoblasts via the EIF2AK3-EIF2A- ATF4 pathway. BMP2 activation of EIF2AK3 stimulates phosphorylation of EIF2A which leads to increased expression of ATF4 which plays a central role in osteoblast differentiation. In addition stimulates TMEM119, which upregulates the expression of ATF4 (PubMed:24362451).
Research Articles on BMP2	**1.** PC5/6A is involved in squamous differentiation of human nasal epithelial cells, possibly through up-regulation of the BMP-2 signaling pathway.
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