



Rat Bone morphogenetic protein 2,BMP-2 ELISA Kit

Product Code	CSB-E04508r
Abbreviation	BMP2
Protein Biological Process 1	Developmental Protein
Target Name	bone morphogenetic protein 2
Uniprot No.	P49001
Alias	BMP2A
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Chondrogenesis
Sample Types	serum, plasma, tissue homogenates
Detection Range	7.8 pg/mL-500 pg/mL
Sensitivity	1.95 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	Bmp2
Tag Info	quantitative
Protein Description	Sandwich

Description

The Rat Bone morphogenetic protein 2 (BMP-2) ELISA Kit is a reliable and precise tool for the quantification of BMP-2 in rat serum, plasma, and tissue homogenates. BMP-2 is a protein that plays a critical role in signal transduction pathways?cardiogenesis, neurogenesis, and osteogenesis, particularly in bone formation and development. Our ELISA kit detects BMP-2 with high sensitivity, with a detection range of 7.8 pg/mL to 500 pg/mL and a sensitivity of 1.95 pg/mL.

The assay principle is a sandwich measurement, providing quantitative results that can be obtained in as little as 1-5 hours. The kit is optimized for use with a sample volume of 50-100ul, making it a cost-effective and efficient solution for



researchers.

This ELISA kit is ideal for researchers investigating signal transduction pathways and the role of BMP-2 in bone development. Additionally, our kit has been cited in over four publications, demonstrating its reliability and accuracy.

Target Details

This protein belongs to the transforming growth factor-beta (TGFB) superfamily. The encoded protein acts as a disulfide-linked homodimer and induces bone and cartilage formation.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat BMP-2 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	95
	Range %	95-110
1:2	Average %	84
	Range %	80-88
1:4	Average %	100
	Range %	95-106
1:8	Average %	98
	Range %	93-104

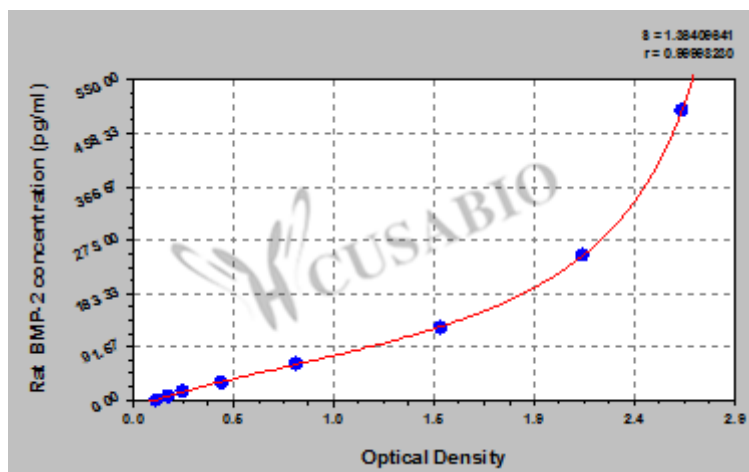
Recovery

The recovery of rat BMP-2 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	89	84-93
EDTA plasma (n=4)	93	88-99

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
500	2.714	2.596	2.655	2.534
250	2.212	2.142	2.177	2.056
125	1.455	1.524	1.490	1.369
62.5	0.800	0.789	0.795	0.674
31.2	0.448	0.421	0.435	0.314
15.6	0.253	0.243	0.248	0.127
7.8	0.172	0.185	0.179	0.058
0	0.123	0.118	0.121	

Msds

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