

Rat BMP-2 ELISA Kit ab213900

1 References 1 Image

Overview

Product name Rat BMP-2 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
1	16	96pg/ml	6.72	= 7%
2	16	245pg/ml	11.27	= 4.6%
3	16	806pg/ml	49.16	= 6.1%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	105pg/ml	9.24	= 8.8%
2	24	234pg/ml	14.97	= 6.4%
3	24	777pg/ml	52.83	= 6.8%

Sample type Cell culture supernatant, Serum, Tissue

Assay type Sandwich (quantitative)

Sensitivity < 2 pg/ml

Range 31.2 pg/ml - 2000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Rat

Product overview The Rat BMP-2 Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213900) is designed for the quantitative measurement of Rat BMP-2 in bone tissue, cell culture supernatants and serum.

The ELISA kit is based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for BMP-2 has been pre-coated onto 96-well plates.

Standards and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for BMP-2 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is 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 Rat BMP-2 amount of sample captured in plate.

## Notes

Bone morphogenetic protein-2 (BMP-2, BMP 2A) belongs to the transforming growth factor beta (TGF beta) superfamily. It is thought to be involved in cartilage and bone formation during embryogenesis, but may have additional functions in morphogenesis as implied by its expression in various organs and embryonic tissues of mice. BMP-2 has been identified as a candidate mediator of retinoid activity. BMP-2 protein induces medulloblastoma cell apoptosis, whereas the BMP-2 antagonist noggin blocks both retinoid and BMP-2-induced apoptosis. BMP-2 also induces p38 mitogen-activated protein kinase (MAPK), which is necessary for BMP-2 and retinoid-induced apoptosis. Bone morphogenic proteins (BMPs) are known to promote osteogenesis, and clinical trials are currently underway to evaluate the ability of certain BMPs to promote fracture-healing and spinal fusion. The standard product used in this kit is recombinant rat BMP-2, constituting dimer by two chains of 114 amino acids with the molecular mass of 26KDa.

## Platform

Pre-coated microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-rat BMP-2 coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti- Rat BMP-2 antibody		1 x 100µl
Lyophilized recombinant Rat BMP-2 standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml
Wash Buffer (25X)		1 x 20ml

## Function

Induces cartilage and bone formation.

## Tissue specificity

Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain,

placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine.

**Sequence similarities**

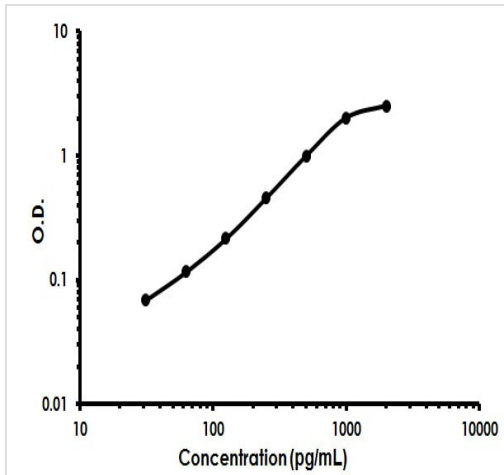
Belongs to the TGF-beta family.

**Cellular localization**

Secreted.

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**Images**



Rat BMP-2 ELISA Kit (ab213900) Standard Curve.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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