SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-BMP2 antibody

Catalog Number: SL1012R

FOR RESEARCH USE ONLY

[DATASHEET]

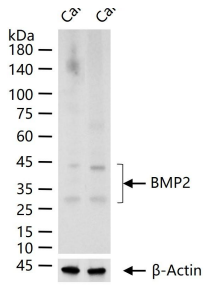
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	BMP2
Immunogen:	KLH conjugated synthetic peptide derived from human BMP2: 283-365/396
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB (1:500-2000) Not yet tested in other applications. Optimal working dilutions must be determined by the end user.
Reactivity:	Mouse, Rat (predicted: Human, Rabbit, Sheep, Cow, Chicken, Dog, Horse)
Predicted MW.:	13/44kDa
Subcellular Location:	Secretory protein
Background:	BMP2 belongs to the transforming growth factor-beta (TGFB) superfamily of secreted growth factors. It is a disulfide-linked homodimer and induces bone and cartilage formation. In addition to its osteogenic activity, BMP2 plays an important role in cardiac morphogenesis and is expressed in a variety of tissues including lung, spleen, brain, liver, prostate ovary and small intestine. The functional form of BMP2 is a 26 kDa protein composed of two identical 114 amino acid polypeptide chains linked by a single disulfide bond. BMPs control fundamental events in early embryonic development, organogenesis and adult tissue homeostasis. **Function:** Induces cartilage and bone formation. **Subunit:** Homodimer; disulfide-linked. Interacts with SOSTDC1. Interacts with GREM2, RGMA, RGMB and RGMC. Interacts with ASPN. **Subcellular Location:** Secreted. **Tissue Specificity:** Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain, placenta, liver, skeletal muscle, kidney,

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	pancreas, prostate, ovary and small intestine. **Similarity:** Belongs to the TGF-beta family. **Database links:** **Entrez Gene:** 650 Human **Entrez Gene:** 12156 Mouse **Entrez Gene:** 29373 Rat Omim: 112261 Human **SwissProt:** P12643 Human **SwissProt:** P21274 Mouse **SwissProt:** P49001 Rat **Unigene:** 73853 Human **Unigene:** 103205 Mouse **Unigene:** 90931 Rat Neural stem cell marker BMP-2 mainly recruits and induces differentiation of undifferentiated mesenchymal cells and cells of the bone lineage. In early bone formation, BMP-2 not only recruits undifferentiated mesenchymal cells to bone-forming centres and induces their differentiation into bone lineage cells, but can also induce reversal of fibroblasts, myoblasts and bone marrow stromal cells into bone lineage cells. The main process is: increasing or inhibiting the secretion of certain specific proteins in these cells, causing fibroblast differentiation into osteoblasts and rapid differentiation of myoblasts into hypertrophic chondrocytes, and promoting matrix calcification. For osteoblasts, BMP-2 maintains their specific cell phenotype, induces an increase in osteoblast markers and promotes extracellular matrix calcification. In the late stage of bone formation, BMP-2 also acts as an osteoclast differentiation factor, directly or indirectly stimulating osteoclast differentiation together with other supporting osteoclast differentiation factors, and participates in bone remodelling.

[VALIDATION IMAGES]



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Figure 1. 25 ug total protein per lane of various lysates (see on figure) probed with BMP2 polyclonal antibody, unconjugated (SL1012R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min

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