DATASHEET

BMP4 Rabbit Monoclonal Antibody(C1727)

CAT. NO. AMA01339

KEY FEATURES

Target	BMP4	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC, IP	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including neurogenesis, vascular development, angiogenesis and osteogenesis . Acts in concert with PTHLH/PTHRP to stimulate ductal outgrowth during embryonic mammary development and to inhibit hair follicle induction . Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR2 . Once all three components are bound together in a complex at the cell surface, BMPR2 phosphorylates and activates BMPR1A. In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200
IF/ICC	1:50 - 1:200
IP	1:10 - 1:50

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Recombinant rabbit monoclonal antibody to BMP4
Specificity	Recognizes endogenous levels of BMP4 protein
Antibody Type	Primary antibody, Recombinant
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within human BMP4 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 46 kD; Observed: 47 kD
Form/Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.
Alternative Names	BMP2B; DVR4; Bone morphogenetic protein 4; BMP-4; Bone morphogenetic protein 2B; BMP-2B
Gene Symbol	BMP4
Entrez Gene	652(Human); 12159(Mouse)
SwissProt	P12644(Human); P21275(Mouse); Q06826(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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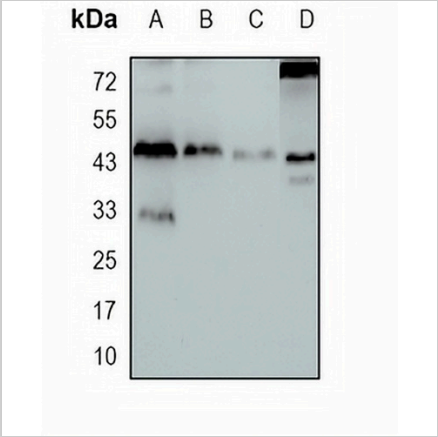
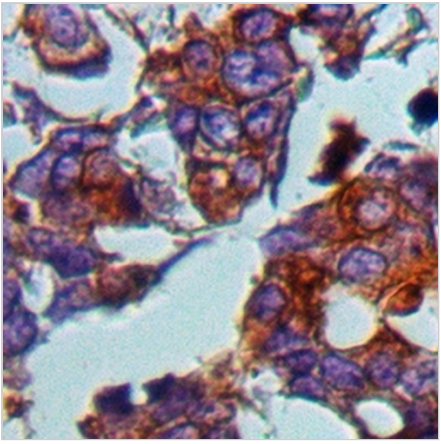
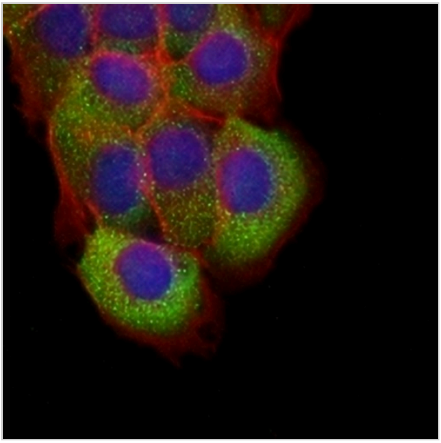
DATA



Western blot analysis of BMP4 expression in mouse liver (A), mouse kidney (B), rat kidney (C), MDAMB231 (D) whole cell lysates. (Predicted band size: 46 kD; Observed band size: 47 kD)



Immunohistochemical analysis of BMP4 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of BMP4 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.