

Bone Morphogenetic Protein 8 (BMP-8) Antibodies

Cat. # BMP81-M

Mouse monoclonal anti-Human BMP8 IgG # 1 (aff pure)

SIZE: 100 ug

The BMPs belong to the TGF- β superfamily, whose members are widely represented throughout the animal kingdom. The BMPs are important regulators of key events in the processes of bone formation during embryogenesis, postnatal growth, remodeling and regeneration of the skeleton. The BMPs function by binding to a receptor complex that is found on all normal cells and is composed of type-I and -II receptors. The primary unit of bone formation is osteoblast, the bone-forming cell. These osteoblast cells respond to physical loading by transducing signals that alter gene expression patterns, and Cbfa (core binding factor), the osteoblast specific transcription factor plays an important role in osteoblast differentiation and function.

BMP activities are modulated through gene expression, protein processing and by interaction with antagonists. The interplay between BMPs and their antagonists such as noggin & chordin governs developmental and cellular processes as diverse as establishment of the embryonic dorsal-ventral axis, induction of neuronal tissue, and formation of joints in the skeletal system and the neurogenesis in the adult brain.

Localization studies in both human and mouse tissues have demonstrated high levels of mRNA expression and protein synthesis for various BMPs in kidney, heart, lung, small intestine, limb bud and teeth. Several BMPs have been implicated in early skeletal development, including BMP-2, -4, -5, -7, -8, -14 (CDMP-1 / GDF-5), other members, such as BMP-3, -6, -7 and -13 (CDMP-2 / GDF-6) may be involved in later stages of skeletal formation.

Source of Antigen and Antibodies

Antigen	Recombinant Human BMP-8
Ab Host/type	Mouse, monoclonal IgG2b Aff pure IgG (cat # BMP81-M) purified over Protein A/G Agarose
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C..

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-2 ug/ml with appropriate secondary reagents to detect human BMP-8).

ELISA (0.1-1.0 ug/ml).

Histochemistry & Immunofluorescence: not tested

Specificity & Cross-reactivity

BMP81-M recognizes recombinant human BMP8 (rhBMP8), It shows no cross-reactivity with rhBMP-2, -3, -4, -5, -6 or -7. Antibody crossreactivity in other species is not tested.

General References:

Kawabata, M et al (1998) Cytokine and Growth Factor Reviews 9: 49-61, Ebendal, T et al (1998), J. Neurosci. Res. 51: 139-146; Reddi, A. H (1998), Nature Biotechnology 16: 247-252, Celeste, A et al (1990) PNAS. 87: 9843-9847.

*This Product is for *in vitro* research use only.

Related material available from ADI

BMP 1-8 antibodies, CDMP antibodies.

Human BMP-7 ELISA kits

BMP81-M

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