BMP15, Bone morphogenetic protein 15 polyclonal antibody

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Box 1 | Basic Info

Cat. No.	ABP-PAB-10455
Animal ID	RB1869-1870
Host	Rabbit
Reactivity	Human
Format	Purified
Accession number	NM_005448
Amount	100µg

Alternative Name(s):

bone morphogenetic protein 15, GDF9B, Bmp15

Bone morphogenetic proteins (BMPs) were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. All BMPs except BMP1 are members of the transforming growth factor-beta superfamily of secreted growth and differentiation factors and they signal through bone morphogenetic protein receptors (BMPRs), membrane-bound serine/threonine kinases. BMP proteins are synthesized as prepropeptides, cleaved, and then processed into dimeric proteins. The precise biological role of bone morphogenetic protein 15 (BMP15) is still unknown but it seems to be involved in oocyte maturation and follicular development as a homodimer or by forming heterodimers with a related protein, GDF9.

Buffers

Purified rabbit polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column and eluted out with both high and low pH buffers and neutralized immediately after elution then followed by dialysis against PBS.

Immunogen

KLH conjugated synthetic peptide comprised of amino acids 19 - 33 [MEHRAQMAEGGQSSI] of the human bone morphogenetic protein 15 (BMP15) protein.

Application

Tested by peptide-specific ELISA (1:1,000). WB (1:100 ~1:500)

Storage

Maintain refrigerated at 2-8ºC for up to 6 months. For long term storage store at -20ºC. Avoid repeated freeze-thaw cycles.

References:

1. Liao WX, Moore RK, Otsuka F, Shimasaki S: Effect of intracellular interactions on the processing and secretion of bone morphogenetic protein-15 (BMP-15) and growth and differentiation factor-9. Implication of the aberrant ovarian phenotype of BMP-15 mutant sheep. J. Biol. Chem. 278(6): 3713-3719 (2003).
2. Moore RK, Otsuka F, Shimasaki S: Molecular basis of bone morphogenetic protein-15 signaling in granulosa cells. J. Biol. Chem. 278(1): 304-310 (2003).
3. Galloway SM, McNatty KP, Cambridge LM, Laitinen MP, Juengel JL, Jokiranta TS, McLaren RJ, Luiro K, Dodds KG, Montgomery GW, Beattie AE, Davis GH, Ritvos O: Mutations in an oocyte-derived growth factor gene (BMP15) cause increased ovulation rate and infertility in a dosage-sensitive manner. Nat. Genet. 25(3): 279-283 (2000).
4. Aaltonen J, Laitinen MP, Vuojolainen K, Jaatinen R, Horelli-Kuitunen N, Seppa L, Louhio H, Tuuri T, Sjoberg J, Butzow R, Hovata O, Dale L, Ritvos O: Human growth differentiation factor 9 (GDF-9) and its novel homolog GDF-9B are expressed in oocytes during early folliculogenesis. J. Clin. Endocrinol. Metab. 84(8): 2744-2750 (1999).
5. Dube JL, Wang P, Elvin J, Lyons KM, Celeste AJ, Matzuk MM: The bone morphogenetic protein 15 gene is X-linked and expressed in oocytes. Mol. Endocrinol. 12(12): 1809-1817 (1998).