



Anti-Bone morphogenetic protein 1 (BMP-1), Rabbit-Polyclonal Antibody

Catalog No. GB-10001
Antigen species: Human
Host species: Rabbit

Quantity: 250 μ l
Reactivity: Human
Form: Antiserum

Applications tested: ELISA

Target description

The BMP-1 (Bone Morphogenetic Protein-1) locus encodes a protein that is capable of inducing formation of cartilage in vivo. Although other bone morphogenetic proteins are members of the TGF-beta superfamily, BMP-1 encodes a protein that is not closely related to other known growth factors. BMP-1 protein and procollagen C proteinase (PCP), a secreted metalloprotease requiring calcium and needed for cartilage and bone formation, are identical. PCP or BMP1 protein cleaves the C-terminal propeptides of procollagen I, II, and III and its activity is increased by the procollagen C-endopeptidase enhancer protein. The BMP1 gene is expressed as alternatively spliced variants that share an N-terminal protease domain but differ in their C-terminal region.

Antigen

This polyclonal antibody was developed by immunizing rabbit with a synthetic peptide located on the putative metalloprotease domain (aa 121-321) of human BMP-1 (ACCESSION NP_001190).

Application

The antibody titer is more than 500K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/50,000 dilution for ELISA, 1/50,000 dilution for Western blot analysis (WB) of recombinant protein, 1/2,000 dilution for tissue extracts or cell lysates, 1/200 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/100 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-MMP2 pAb (GB-10342)
2. Anti-MMP17 pAb (GB-10042).
3. Anti-MMP1 pAb (PY-10174).
4. Anti-MMP12(a.a.35-117) pAb (PY-10169).

Ab dilution	Pre-immune	Anti-serum
1:0.1K	0.209	1.670
1:1K	0.078	1.530
1:10K	0.053	1.058
1:100K	0.049	0.310
1:1000K	0.047	0.091
Titer		~718K

ELISA Protocol

Antigen is coated on EIA strips at 1 μ g per well. Add 100 μ l of blocking buffer and then wash wells with PBS buffer. Preimmune serum and antiserum of GB-10001 is diluted from 0.1K to 1000K and added in separate wells. Incubate at RT for 1hr. Wash unbound antibodies and add HRP conjugated anti-rabbit IgG. Incubate at RT for 1 hr. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Antibody is positive at >0.1 of ABS of control/ Pre-immune serum.

Storage

It is supplied as lyophilized serum. Redissolve the lyophilized powder with 250 microliter sterile water will restore the original condition. Store at 4°C for short term application. For long-term storage, aliquot and store at -20°C.

References

1. Barry M. Steiglit, Douglas R. Keene and Daniel S. Greenspan. PCOLCE2 encodes a functional procollagen C-proteinase enhancer (PCPE2) That is a collagen-binding protein differing in distribution of expression and post-translational modification from the previously described PCPE1. The journal of biological chemistry. Vol. 277, No. 51, 49820-49830, Dec 20, 2002.
2. Mat Leighton and Karl E. Kadler. Paired basic/furin-like proprotein convertase cleavage of pro-BMP-1 in the trans-Golgi network. The journal of biological chemistry. Vol. 278, No. 20, 18478-18484, May 16, 2003.

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