



Monoclonal Anti-human BMP-1/PCP Antibody

ORDERING INFORMATION

Catalog Number: MAB1927

Clone: 264822

Lot Number: UIC02

Size: 500 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human BMP-1

Immunogen: NS0-derived rhBMP-1

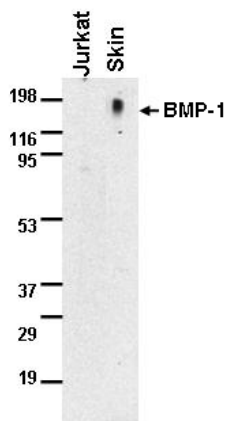
Ig class: rat IgG_{2b}

Recommended Applications:

Western blot
Immunoprecipitation

Other Application:

Direct ELISA



Detection of human BMP-1 with MAB1927.

Lysates were prepared from human skin extract in non-reducing sample buffer, resolved by SDS-PAGE (30 µg total protein/lane), and transferred to an Immobilon P membrane. The blot was developed with 2 µg/mL MAB1927 and chemiluminescent detection substrate.

Background

Bone Morphogenetic Protein 1 (BMP-1), also known as Procollagen C-proteinase (PCP), is a zinc protease of the astacin family. BMP-1 plays a key role in formation of extracellular matrix by converting precursor proteins into their mature and functional forms. Substrates for BMP-1 include collagens, biglycan, laminin 5, dentin matrix protein-1, and lysyl oxidase. There are six alternatively spliced isoforms derived from the BMP-1 gene. BMP-1 is not related structurally to other BMPs.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant human BMP-1 (rhBMP-1; aa 121 - 730; Accession # NP_001190). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody detects rhBMP-1 Western blots and direct ELISAs.

Applications

Western blot - This antibody can be used at 2 µg/mL with the appropriate secondary reagents to detect human BMP-1 in cell or tissue extracts. Refer to <http://www.RnDSYSTEMS.com/go/WBCeLLysates> for detailed procedures for preparing lysates and Western blotting. The specific buffers are listed below.

Blotting Buffer

25 mM Tris, pH 7.4
0.15 M NaCl
0.05% Tween® 20

Blocking Solution

5% nonfat dry milk
in Blotting Buffer

Antibody Solution

5% nonfat dry milk
in Blotting Buffer

Immunoprecipitation - This antibody was used at a concentration of 25 µg/mL to immunoprecipitate rhBMP-1 from conditioned cell culture medium. The recovered rhBMP-1 can be detected by Western blots by using a polyclonal antibody (R&D Systems, Catalog # AF1927 or BAF1927).

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human BMP-1. The detection limit for rhBMP-1 is approximately 3 ng/well.

Optimal dilutions should be determined by each laboratory for each application.

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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