Datasheet: AHP960

BATCH NUMBER 160418

Description:	RABBIT ANTI HUMAN BMP-2
Specificity:	BMP-2
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			0.25ug/ml
ELISA	▪			0.5 - 5.0ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			0.1 - 1.0ug/ml
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

Target Species	Human
Product Form	Purified IgG - liquid
Antiserum Preparation	Antisera to human BMP-2 were raised by repeated immunisations of rabbits with highly purified antigen.
Buffer Solution	Phosphate buffered saline
Preservative	<0.1% Sodium Azide (NaN_3)

Stabilisers	
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant human BMP-2
External Database Links	**UniProt:** P12643 Related reagents **Entrez Gene:** 650 BMP2 Related reagents
Synonyms	BMP2A
RRID	AB_609564
Specificity	**Rabbit anti Human BMP-2 antibody** recognizes the disulphide-linked homodimeric cysteine knot protein known as human Bone Morphogenetic Protein 2 (BMP-2/BMP-2a), full-length 396 amino acids. BMP-2 is a member of the Transforming Growth Factor beta (TGF-B) superfamily and one of a growing number of osteogenic proteins shown to induce bone and cartilage formation and to play an important role in developmental processes, including cell proliferation, differentiation, apoptosis and morphogenesis. BMPs act through binding with a receptor complex consisting of type I and type II serine/threonine kinases, resulting ultimately in the activation of the Smad protein and mitogen-activated protein kinase (MAPK) signaling pathways. Several antagonist proteins, including, noggin, chordin, gremlin and follistatin, are responsible for modulating the signaling effects of BMPs, through the binding and blocking of receptor ligands, thereby preventing activation. The realization that BMP-2 was involved in the stimulation of bone formation emerged from research in spinal surgery, following the discovery that the healing of bones was directed by proteins contained within the bone matrix itself.
ELISA	This purified human BMP-2antibody may be used in an indirect ELISA or as the capture reagent in a sandwich ELISA with our biotinylated human BMP-2 antibody (AHP960B) as the detection reagent.
Western Blotting	This antibody may be used in Western Blotting under either reducing or non-reducing conditions.
References	1. Bessa, P.C. *et al.* (2008) Osteoinduction in human fat-derived stem cells by recombinant human bone morphogenetic protein-2 produced in Escherichia coli. Biotechnol Lett. 30 (1): 15-21.

Further Reading	1. Kimura, N. *et al.* (2000) BMP2-induced apoptosis is mediated by activation of the TAK1-p38 kinase pathway that is negatively regulated by Smad6. J Biol Chem. 275 (23): 17647-52. 2. Kirsch, T. *et al.* (2000) BMP-2 antagonists emerge from alterations in the low-affinity binding epitope for receptor BMPR-II. EMBO J. 19 (13): 3314-24. 3. Balemans, W. & VanHul, W. (2002) Extracellular regulation of BMP signaling in vertebrates: a cocktail of modulators. Dev Biol. 250 (2): 231-50. 4. Keller, S. *et al.* (2004) Molecular recognition of BMP-2 and BMP receptor IA. Nat Struct Mol Biol. 11 (5): 481-8. 5. Sebald, W. *et al.* (2004) Molecular recognition in bone morphogenetic protein (BMP)/receptor interaction. Biol Chem. 385 (8): 697-710.
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/AHP960 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP

Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A)
TidyBlot WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M389263:210806'

Printed on 29 Aug 2024