

Datasheet: AHP961B

Description:	RABBIT ANTI HUMAN BMP-7:Biotin
Specificity:	BMP-7
Other names:	OP-1
Format:	Biotin
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			▪	
ELISA	▪			0.25 - 1.0ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			0.1 - 0.2ug/ml

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG conjugated to Biotin - lyophilised
Reconstitution	<p>Reconstitute with 0.5 ml sterile PBS containing 0.1% Bovine Serum Albumin. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.</p> <p>For long term storage the addition of 0.09% sodium azide is recommended.</p>
Antiserum Preparation	Antisera to human BMP-7 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein	IgG concentration 0.1 mg/ml after reconstitution

Concentrations

Immunogen Recombinant human BMP-7.

External Database Links

UniProt:

[P18075](#) [Related reagents](#)

Entrez Gene:

[655](#) BMP7 [Related reagents](#)

Synonyms OP1

Specificity

Rabbit anti Human BMP-7 antibody recognizes the disulphide-linked homodimeric cysteine knot protein known as human Bone Morphogenetic Protein 7 (BMP-7) or Osteogenic protein 1 (OP-1). BMP-7 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.

Studies into the properties of BMP-7 have largely focused on its role during ontogeny of the kidney, owing to its prominent expression in the renal tubules. Results from research into experimental diabetic nephropathy have indicated that BMP-7 has antifibrogenic properties and appears to act as an antagonist to TGF-Beta⁽³⁻⁴⁾.

ELISA

AHP961B may be used in a direct ELISA or as the detection reagent in a sandwich ELISA with [AHP961](#) as the capture antibody and [PHP168](#) as the standard.

Western Blotting

AHP961B may be used in Western blotting with [PHP168](#) as the positive control.

References

1. Delpuch, P.O. *et al.* (2014) Effects of warm ischaemia combined with cold preservation on the hypoxia-inducible factor 1 α pathway in an experimental renal autotransplantation model. [Br J Surg. 101 \(13\): 1739-50.](#)

Further Reading

1. Balemans, W. & Van Hul, W. (2002) Extracellular regulation of BMP signaling in vertebrates: a cocktail of modulators. [Dev Biol. 250 \(2\): 231-50.](#)
 2. Sebald, W. *et al.* (2004) Molecular recognition in bone morphogenetic protein (BMP)/receptor interaction. [Biol Chem. 385 \(8\): 697-710.](#)
 3. Wang, S.N. *et al.* (2001) Loss of tubular bone morphogenetic protein-7 in diabetic nephropathy. [Am Soc Nephrol. 12 \(11\): 2392-9.](#)
 4. Godin, R.E. *et al.* (1998) Regulation of BMP7 expression during kidney development. [Development. 125 \(17\): 3473-82.](#)
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Storage

Prior to reconstitution store at +4°C.
After reconstitution store at -20°C.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature

the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	12 months from date of reconstitution.
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Health And Safety Information	Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10162 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

[RECOMBINANT HUMAN BMP-7 \(PHP168\)](#)

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'M285735:160408'

Printed on 19 Jan 2018

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