Datasheet: AHP961

Description:	RABBIT ANTI HUMAN BMP-7
Specificity:	BMP-7
Other names:	OP-1
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)	▪			
ELISA	▪			0.5ug/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.

(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-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	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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].
References	1. Delpech, P.O. *et al.* (2014) Effects of warm ischaemia combined with cold preservation on the hypoxia-inducible factor 1α 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. J 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.
Storage	Store at +4°C or at -20°C if preferred. 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	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP
Sheep Anti Rabbit IgG (2AB02...)	Biotin
Sheep Anti Rabbit IgG (STAR36...)	DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800

Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A)
ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025C)

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