



# Anti-BMP7 polyclonal antibody (CPBT-65604RH)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

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 may be used in a direct ELISA or as the detection reagent in a sandwich ELISA.

<b>Specificity</b>	BMP-7
<b>Immunogen</b>	Recombinant human BMP-7
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human
<b>Conjugate</b>	Biotin
<b>Applications</b>	ELISA; WB

<b>Format</b>	Purified IgG conjugated to Biotin - lyophilised
<b>Size</b>	50 µg
<b>Preservative</b>	None
<b>Storage</b>	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.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">BMP7 bone morphogenetic protein 7 [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	BMP7
<b>Synonyms</b>	BMP7; bone morphogenetic protein 7; OP-1; osteogenic protein 1; BMP-7;
<b>Entrez Gene ID</b>	<a href="#">655</a>
<b>Protein Refseq</b>	<a href="#">NP_001710</a>
<b>UniProt ID</b>	P18075
<b>Chromosome Location</b>	20q13
<b>Pathway</b>	ALK2 signaling events; BMP receptor signaling; BMP signaling; Cytokine-cytokine receptor interaction; Elastic fibre formation; Endochondral Ossification; Extracellular matrix organization; Hippo signaling pathway;
<b>Function</b>	BMP receptor binding; cytokine activity; growth factor activity; heparin binding; protein binding; transforming growth factor beta receptor binding;