

## Datasheet: PHP162

<b>Description:</b>	RECOMBINANT HUMAN BMP-2
<b>Name:</b>	BMP-2
<b>Format:</b>	Rec. Protein
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	10 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.abdserotec.com/protocols](http://www.abdserotec.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Functional Assays	■			

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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified recombinant protein - lyophilised
<b>Reconstitution</b>	Reconstitute with 100ul distilled water. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Serotec recommend that the vial is gently mixed after reconstitution.
<b>Preparation</b>	Purified recombinant BMP-2, expressed in <i>E. coli</i>
<b>Preservative Stabilisers</b>	None present
<b>Endotoxin Level</b>	<0.1ng/ug
<b>Approx. Protein Concentrations</b>	0.1mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P12643</a> BMP2_HUMAN <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">650</a> BMP2 <a href="#">Related reagents</a></p>
<b>Synonyms</b>	BMP2A

<b>Product Information</b>	Bone morphogenetic protein-2 (BMP-2), is a 26 kDa dimer consisting of 2 115 amino acid polypeptide chains and belongs to the TGF beta family of structurally related signalling proteins. It is primarily expressed in lung, spleen and colon but also at significant levels in heart, brain, placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine.
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In association with osteoconductive carriers such as collagen and synthetic hydroxyapatite, BMP-2 can induce bone and cartilage formation and is involved in cell proliferation and morphogenesis. The osteolytic activity of BMP-2 can be exploited by metastatic tumours and BMP-2 can also enhance angiogenesis. However BMP-2 can act as a tumour

suppressor, promoting apoptosis in mature colonic epithelial cells and lowered BMP-2 expression is associated with prostate cancer progression.

Along with TGF-beta, BMP-2 activates both Ras/MAPK/AP-1 and Smad signalling in osteoblasts with Smads modulating AP-1 activity.

<b>Molecular Weight</b>	26kD
<b>Activity</b>	The ED <sub>50</sub> as determined by its ability to induce alkaline phosphatase production by ATDC-5 cells is < 1µg/ml.
<b>Purity</b>	>98% by SDS PAGE and HPLC analysis.
<b>References</b>	1. Sebald, W. <i>et al.</i> (2004) Molecular recognition in bone morphogenetic protein (BMP)/receptor interaction. <a href="#">Biol. Chem. 385: 697-710.</a>
<b>Storage</b>	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.
<b>Shelf Life</b>	3 months from date of reconstitution.
<b>Health And Safety Information</b>	Material Safety Datasheet Documentation #10268 available at: <a href="http://www.abdserotec.com/uploads/MSDS/10268.pdf">http://www.abdserotec.com/uploads/MSDS/10268.pdf</a>
<b>Regulatory</b>	For research purposes only

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**Printed on 30 May 2013**