

## PPH56 PODS<sup>®</sup> Human BMP-4

### Description

The product contains the polyhedrin protein co-crystallized with Human BMP-4. Bone Morphogenetic Protein 4 (BMP-4) is a member of the Bone Morphogenetic Protein (BMP) family. These proteins are synthesized as large precursor molecules which are cleaved by proteolytic enzymes. BMP proteins stimulate the production of bone matrix proteins and osteoclasts proliferation, and can be found on tissues related with bone or cartilage growth.

<b>Length</b>	452 aa
<b>Molecular Weight</b>	103 kDa
<b>Source</b>	<i>Spodoptera frugiperda (Sf9) cell culture</i>
<b>Accession Number</b>	AAC72278.1

### Usage Recommendation

PODS<sup>®</sup> co-crystals provide a depot of proteins which are steadily secreted. It has been estimated that the biological activity of 50 million PODS<sup>®</sup> co-crystals generates the same peak dose as 3.3 µg of standard recombinant protein. However, at 5 days following the start of seeding the PODS<sup>®</sup> co-crystals, there are more than 50% of these peak levels still present in the culture system. Ultimately, the amount of PODS<sup>®</sup> co-crystals that is optimal for a particular experiment should be determined empirically. Based on previous data, we suggest using 50 million PODS<sup>®</sup> co-crystals in place of 3.3 µg of standard growth factor as a starting point. To control for cross-reactivity with cells or as a negative control, we recommend using PODS<sup>®</sup> growth factors alongside [PODS<sup>®</sup> Empty crystals](http://www.cellgs.com/products/podsand8482-empty.html), as the latter do not contain or release cargo protein.

### Specifications

<b>Alternative Names</b>	Bone morphogenetic protein 4, bone morphogenetic protein 4A, BMP-4A, BMP4, BMP4A
<b>Endotoxin Level</b>	<0.06 EU/ml as measured by gel clot LAL assay
<b>Formulation</b>	PODS <sup>®</sup> were lyophilized from a volatile solution
<b>AA Sequence</b>	MADVAGTSNR DFRGREQLRF NSEQYNYNNS KNSRPSTSLY KKAGSIPGNR MLMVVLLCQV LLGGASHASL IPETGKKKVA EIQGHAGRR SGQSHELLRD FEATLLQMGF LRRRPQPSKS AVIPDYMRDL YRLQSGEEEE EQIHSTGLEY PERPASRANT VRSFHHEEHL ENIPGTSENS AFRFLFNLS IPENEAISSA ELRLFREQVD QGPDWERGFH RINIYEVMPK PAEVVPGHLI TRLLDTRLVH HNVTRWETFD VSPAVLRWTR EKQPNYGLAI EVTHLHQTRT HQGQHVRI SR SLPQGGNWA QLRPLLVTFG HDGRGHALTR RRAKRSPKH HSQRARKKNK NCRHSLYVD FSDVGWNDWI VAPPGYQAFY CHGDCPFPLA DHLNSTNHAI VQTLVNSVNS SIPKACCVPT ELSAISMLYL DEYDKVVLKN YQEMVVEGCG CR

### Preparation and Storage

<b>Reconstitution</b>	PODS <sup>®</sup> co-crystals may be reconstituted at 200 million co-crystals/ml in water. 20% glucose has a buoyant density closer to PODS <sup>®</sup> co-crystals and can be useful for aliquoting. PODS <sup>®</sup> co-crystals are highly stable when stored in aqueous solution (pH range 6 - 8).
<b>Stability and Storage</b>	Upon receipt, store at 4°C. PODS <sup>®</sup> co-crystals are stable for at least 1 year when dry and 6 months when resuspended.