

PPH308 PODS[®] Human BMP-10

Description

The product contains the polyhedrin protein co-crystallized with Human BMP-10. Bone Morphogenetic Protein 10 (BMP-10) 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. BMP-10 plays a crucial role in the development of the embryonic heart by acting to stimulate and maintain cardiomyocyte proliferation. In dermal endothelial cells, BMP-10 plays a role in migration, proliferation, and gene expression.

Length	153 aa
Molecular Weight	34.6 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	O95393

Usage Recommendation

PODS[®] co-crystals provide a depot of proteins which are steadily secreted. It has been estimated that the biological activity of 50 million PODS[®] 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[®] co-crystals, there are more than 50% of these peak levels still present in the culture system. Ultimately, the amount of PODS[®] co-crystals that is optimal for a particular experiment should be determined empirically. Based on previous data, we suggest using 50 million PODS[®] 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[®] growth factors alongside [PODS[®] Empty crystals](http://www.cellgs.com/products/podsand8482-empty.html), as the latter do not contain or release cargo protein.

Specifications

Alternative Names	Bone morphogenetic protein 10, BMP10
Endotoxin Level	<0.06 EU/ml as measured by gel clot LAL assay
Formulation	PODS [®] were lyophilized from a volatile solution
AA Sequence	MADVAGTSNR DFRGREQRLF NSEQYNYNNS KNSRPSTSLY KKAGFNAKGN YCKRTPLYID FKEIGWDSWI IAPPGYEAYE CRGVCNYPLA EHLTPTKHAI IQALVHLKNS QKASKACCVF TKLEPISILY LDKGVVITYKF KYEGMAVSEC GCR

Preparation and Storage

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