

PPH319 PODS[®] Human OPN

Description

The product contains the polyhedrin protein co-crystallized with Human OPN. Osteopontin (OPN) is a secreted molecule in the SIBLING (small integrin-binding ligand N-linked glycoprotein) family of non-collagenous matricellular proteins. OPN is widely expressed and is prominent in mineralized tissues, inhibiting bone mineralization and kidney stone formation. This growth factor promotes inflammation, cell adhesion, and migration. Moreover its expression is up-regulated during inflammation, obesity, atherosclerosis, cancer, and tissue damage.

Length	343 aa
Molecular Weight	38.9 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	NP_000573.1

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	BNSP, Bone sialoprotein 1, Eta-1, MGC110940, Nephropontin, osteopontin, secreted phosphoprotein 1, bone sialoprotein I, early T-lymphocyte activation 1, Spp1, SPP-1, SPP1/CALPHA1 fusion, urinary stone protein, uropontin
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 KKAGFIPVKQ ADSGSSEEKQ LYNKYPDAVA TWLNPDPSSQK QNLLAPQNAV SSEETNDFKQ ETLPSKSNES HDHMDDMDDE DDDDHVDSQD SIDSNDSDDV DDTDDSHQSD ESHHSDESDE LVTDFPTDLP ATEVFTPVVP TVDTYDGRGD SVVYGLRSKS KKFRRPDIQY PDATDEDITS HMESEELNGA YKAIPVAQDL NAPSDWDSRG KDSYETSQLD DQSAETHSHK QSRLYKRKAN DESNEHSDVI DSQELSKVSR EFHSHEFHSH EDMLVVDPKS KEEDKHLKFR ISHELDSSASS EVN

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.

