

## PPH168 PODS<sup>®</sup> Human SHH

### Description

The product contains the polyhedrin protein co-crystallized with Human SHH. Sonic hedgehog (SHH) is a member of a small group of hedgehog secreted proteins that are essential for development in both vertebrates and invertebrates. There are three mammalian hedgehog homologues, sonic, desert, and indian, that signal via the Patched-1 and Patched-2 receptors. SHH is a morphogen that is essential during vertebrate organogenesis and adult stem cell division.

<b>Length</b>	220 aa
<b>Molecular Weight</b>	25 kDa
<b>Source</b>	<i>Spodoptera frugiperda (Sf9) cell culture</i>
<b>Accession Number</b>	Q15465

### 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>	Sonic hedgehog, HHG-1, HHG1, HLP3, HPE3
<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 DFRGREQRLF NSEQYNNNS KNSRPSTSLY KKAGFACGPG RGFGRRHHPK KLTPLAYKQF IPNVAEKTG ASGRYEGKIS RNSERFKELT PNYNPDIIFK DEENTGADRL MTQRCKDKLN ALAISVMNQW PGVKLRVTEG WDEDGHHSEE SLHYEGRAVD ITTSDRDRSK YGMLARLAVE AGFDWVYYES KAHIHCSVKA ENSVAAKSGG

### 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.