

## PPH300 PODS® Human Wnt-3a

### Description

The product contains the polyhedrin protein co-crystallized with Human Wnt-3a. Wnt-3a signalling has been implicated in the control of differentiation of stem cells. Wnt proteins have been shown to regulate cell-to-cell interactions during embryogenesis, more specifically regulating mesoderm differentiation and osteogenesis. The Wnts have also been shown to have putative roles in the regulation of adult stem cells.

<b>Length</b>	430 aa
<b>Molecular Weight</b>	48.1 kDa
<b>Source</b>	<i>Spodoptera frugiperda (Sf9) cell culture</i>
<b>Accession Number</b>	AAI03922.1

### 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

<b>Alternative Names</b>	Wingless type 3, MMTV integration site family member 3A, Wnt 3a, Wnt3a
<b>Endotoxin Level</b>	<0.06 EU/ml as measured by gel clot LAL assay
<b>Formulation</b>	PODS® were lyophilized from a volatile solution
<b>AA Sequence</b>	MADVAGTSNR DFRGREQRLF NSEQYNYNNS KNSRPSTSLY KKAGFMAPLG YFLLLCSLKQ ALGSYPIWWS LAVGPQYSSL GSQPILCASI PGLVPKQLRF CRNYVEIMPS VAEGIKIGIQ ECQHQFRGRR WNCTTVHDSL AIFGPVLDKA TRESAFVHAI ASAGVAFAVT RSCAEGTAAI CGCSSRHQGS PGKGWKWGGC SEDIEFGGMV SREFADAREN RPDARSAMNR HNNEAGRQAI ASHMHLKCKC HGLSGSCEVK TCWWSQPDFR AIGDFLKDKY DSASEMVVEK HRESRGWVET LRPRYTYFKV PTERDLVYYE ASPNFCEPNP ETGSFGTRDR TCNVSSHGID GCDLLCCGRG HNARAERRRE KCRCVFWCC YVSCQECTRV YDVHTCKNPG SRAGNSAHQP PHPQPPVRFH PPLRRAGKVP

### Preparation and Storage

<b>Reconstitution</b>	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).
<b>Stability and Storage</b>	Upon receipt, store at 4°C. PODS® co-crystals are stable for at least 1 year when dry and 6 months when resuspended.

