

PPH318 PODS<sup>®</sup> Human Nodal

## Description

The product contains the polyhedrin protein co-crystalized with Human Nodal. Nodal is a member of the TGF- $\beta$  superfamily and signals through two receptor complexes. Nodal induces both mesoderm and endoderm and participate in anterior-posterior positioning. Nodal also induces apoptosis in susceptible cell populations through ALK7.

<b>Length</b>	155 aa
<b>Molecular Weight</b>	18 kDa
<b>Source</b>	<i>Spodoptera frugiperda (Sf9) cell culture</i>
<b>Accession Number</b>	Q96S42

## 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  $\mu$ g 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  $\mu$ g 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>	BMP-16, MGC138230, nodal homolog (mouse)
<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 KKAGFHLLPD RSQLCRKVKF QVDFNLIGWG SWIYYPKQYN AYRCEGECPN PVGEEFHPTN HAYIQSLLKR YQPHRVPSTC CAPVKTKPLS MLYVDNGRVL LDHKKDMIVE ECGCL

## 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.