

## PPH315 PODS<sup>®</sup> Human MANF

### Description

The product contains the polyhedrin protein co-crystalized with Human MANF. Mesencephalic Astrocyte-derived Neurotrophic Factor (MANF), also known as ARP and ARMET, is secreted and localized at the endoplasmic reticulum (ER) and Golgi apparatus, and expressed in brain, neuronal and certain non-neuronal tissues. MANF selectively protects nigral dopaminergic neurons, versus GABAergic or serotonergic neurons, which suggests that this protein may be indicated for the treatment of neural diseases, such as Parkinson's disease.

<b>Length</b>	252 aa
<b>Molecular Weight</b>	29 kDa
<b>Source</b>	<i>Spodoptera frugiperda (Sf9) cell culture</i>
<b>Accession Number</b>	ACE87065

### 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>	Arginine-Rich Protein, arginine-rich mutated in early stage tumors, ARMET, ARP, mesencephalic astrocyte-derived neurotrophic factor, protein ARMET
<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>	MRRMRMWAT QGLAVALALS VLPGSRALRP GDCEVCISYL GRFYQDLKDR DVTFFSPATIE NELIKFCREA RGKENRLCY Y IGATDDAATK IINEVSKPLA HHIPVEKICE KLKKKDSQIC ELKYDKQIDL STVDLKKLRV KELKKILDDW GETCKGCAEK SDYIRKINEL MPKYAPKAAS ARTDFDPAFL YKVVDGYLLA FNSQRRSHTL RLLGPFQYFN FSETDRGHPL FRLPLKYPSK AIPADELIDN LH

### 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.