

PPH34 PODS[®] Human IGF-1

Description

The product contains the polyhedrin protein co-crystallized with Human IGF-1. Insulin-like Growth Factor 1 (IGF-1) is a growth factor that is produced by the liver. IGF-1 production is stimulated by Growth Hormone. IGF-1 binds the insulin-like growth factor 1 receptor (IGF1R) and the insulin receptor to stimulate systemic body growth. IGF-1 is one of the most potent activators of the AKT signaling pathway, which stimulates cell proliferation and inhibits programmed cell death.

Length	114 aa
Molecular Weight	13 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P05019

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	Insulin-like Growth Factor 1, somatamedin C, mechano growth factor, IGF-IA, IGF-IB, IGF-I, IGFI, insulin-like growth factor I, IGF1A1, insulin-like growth factor IA, insulin-like growth factor IB, MGF2, IBP1
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 NSEQYNNNS KNSRPSTSLY KKAGSPETLC GAELVDALQF VCGDRGFYFN KPTGYGSSSR RAPQTGIVDE CCFRSCDLRR LEMYCAPLKP AKSA

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.