

PPH348 PODS[®] Human FGF-4

Description

The product contains the polyhedrin protein co-crystallized with Human FGF-4. Fibroblast Growth Factor 4 (FGF-4) is a secreted growth factor that is predominantly expressed during bone morphogenesis and embryonic limb development. FGF-4 is an important growth regulator for stem cells, fibroblasts, and endothelial cells. FGF-4 contains a single N-linked glycosylation signal. However, in vitro studies suggest that unglycosylated FGF-4 is cleaved into 13 kDa and 15 kDa truncated proteins that have greater biological activity than the wild type 19 kDa FGF-4 protein. Human FGF-4 shares high homology and is cross-reactive with mouse FGF-4.

Length	176 aa
Molecular Weight	24.5 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P08620

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, as the latter do not contain or release cargo protein.

Specifications

Alternative Names	Fibroblast Growth Factor 4, FGF4, FGF 4, transforming protein KS3, HBGF-4, HST-1
Endotoxin Level	<0.06 EU/ml as measured by gel clot LAL assay
Formulation	PODS [®] were lyophilized from a volatile solution
AA Sequence	MADVAGTSNR DFRGREQLF NSEQYNYNNS KNSRPSTSLY KKAGFAPTAP NGTLEAELER RWESLVALSL ARLPVAAQPK EAAVQSGAGD YLLGIKRLRR LYCNVGIGFH LQALPDGRIG GAHADTRDSL LELSPVERGV VSIFGVASRF FVAMSSKGL YGSPFFTDEC TFKEILLPNN YNAYESYKYP GMFIALSKNG KTKKGNRVSP TMKVTHFLPR L

Preparation and Storage

Reconstitution	PODS [®] co-crystals may be reconstituted at 200 million co-crystals/ml in sterile PBS. 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.