

PPH187 PODS[®] Human FGF-7

Description

The product contains the polyhedrin protein co-crystallized with Human FGF-7. Fibroblast Growth Factor 7 (FGF-7), also known as Keratinocyte Growth Factor (KGF), is a potent mitogen that regulates epithelial cell migration and differentiation. FGF-7 is produced by mesenchymal cells and binds in high affinity to a splice variant of FGF receptor 2 (FGFR2-IIIb). The mitogenic activity of FGF-7 acts predominantly on keratinocytes, but not on fibroblast or endothelial cells. FGF-7 expression is upregulated after acute and chronic injury, suggesting that FGF-7 functions during the healing of injured epithelial cells. FGF-7 also induces the formation of the apical ectoderm ridge during limb development.

Length	208 aa
Molecular Weight	24 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P20781

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	Fibroblast Growth Factor 7, FGF7, FGF 7, KGF, Keratinocyte Growth Factor
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 KKAGSCNDMT PEQMATNVNC SSPERHTRSY DYMEGGDIRV RRLFCRTQWY LRIDKRGKVK GTQEMKNNYN IMEIRTVAVG IVAIKGVESE FYLAMNKEGK LYAKKECNED CNFKELILEN HYNTYASAKW THNGGEMFVA LNQKGIPVRG KKTKEQKTA HFLPMAIT

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.