

PPH109 PODS[®] Human TGF-β3

Description

The product contains the polyhedrin protein co-crystallized with Human TGF-β3. Transforming Growth Factors (TGFs) are multifunctional peptides that regulate growth and differentiation in most cell types. The TGF-β family of proteins signal through serine/threonine kinase receptors. TGF-β isoforms (TGF-β1, -β 2, and -β 3) have overlapping, yet distinct biological actions in developing and adult tissues. TGF-β3 is an important factor in regulating cell adhesion and accelerating wound repair. TGF-β3 also functions during osteoblast proliferation, chemotaxis, and collagen synthesis.

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| Length | 158 aa |
| Molecular Weight | 36 kDa |
| Source | <i>Spodoptera frugiperda (Sf9) cell culture</i> |
| Accession Number | P10600 |

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

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| Alternative Names | Transforming Growth Factor beta 3, TGF beta 3, TGF-β-3, TGFB3, TGFbeta3 |
| 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 NSEQYNYNNS KNSRPSTSLY KKAGYMALDT NYCFRNLEEN CCVRPLYIDF RQDLGWKQVH EPKGYANFC SGPCPYLRSA DTHSTVLGL YNTLNPEASA SPCCVPQDLE PLTILYYVGR TPKVEQLSNM VVKCKCS |

Preparation and Storage

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| 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. |