

PPH18 PODS[®] Human PDGF-BB

Description

The product contains the polyhedrin protein co-crystalized with Human PDGF-BB. Platelet-Derived Growth Factor (PDGF) is an important regulator of cell growth, proliferation, and angiogenesis. PDGF synthesis is induced by IL-1, IL-6, TNF-alpha, TGF-β and EGF signaling. PDGF functions as a mitogenic growth hormone on cells of mesenchymal lineage, such as smooth muscle and glial cells. PDGF is also stored in the alpha-granules of platelets and is released upon adherence to traumatized tissues. PDGF is a dimeric glycoprotein formed by two A chains (AA), two B chains (BB), or as a heterodimer with an A and a B chain (AB). The PDGF dimer binds the cell surface receptor tyrosine kinases PDGFR-a and PDGFR-b.

Length	286 aa
Molecular Weight	64 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P01127

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	Platelet-Derived Growth Factor, GDGF, ODGF, PDGF BB
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 KKAGFMNRCW ALFLSLCCYL RLVSAEGDPI PEELYEMLSD HSIRSFDDLQ RLLHGDPGEE DGAELDLNMT RSHSGGELES LARGRRSLGS LTIAEPAMIA ECKTRTEVFE ISRRLIDRTN ANFLVWPPCV EVQRCSGCCN NRNVQCRPTQ VQLRPVQVRK IEIVRKKPIF KKATVTLEDH LACKCETVAA ARPVTRSPGG SQEQRAKTPQ TRVTIRTVRV RRPPKGKHRK FKHTHDKTAL KETLGA

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.