

PPH16 PODS® Human PDGF-AA

Description

The product contains the polyhedrin protein co-crystallized with Human PDGF-AA. 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- α , 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 α -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	170 aa
Molecular Weight	19.5 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P04085

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 μ g 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 μ g 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	Platelet-Derived Growth Factor, GDGF, ODGF, PDGF AA
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 KKAGFSIEEA VPAVCKTRTV IYEIPRSQVD PTSANFLIWP PCVEVKRCTG CCNTSSVKCQ PSRVHHRSVK VAKVEYVRKK PKLKEVQVRL EEHLECACAT TSLNPDYREE DTGRPRESGK KRKRKRLKPT

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.