

PPH351 PODS[®] Human Oncostatin M

Description

The product contains the polyhedrin protein co-crystallized with Human Oncostatin M. Oncostatin M (OSM) is a member of the LIF/OSM family of proteins that participates in the regulation of haematopoiesis, neurogenesis, osteogenesis and inflammation. OSM can stimulate proliferation of cells such as fibroblasts and smooth muscle cells, but can also induce inhibitory effects on certain tumour cells lines. Furthermore, OSM regulates production and subsequent secretion of cytokines like IL-6, GM-CSF and G-CSF from endothelial cells. Human OSM shares 45% amino acid sequence homology with mouse and rat OSM and is active on murine cells.

Length	196 aa
Molecular Weight	27.4 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P13725

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	Oncostatin-M, OSM
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 KKAGFAAIGS CSKEYRVLLG QLQKQTDLMQ DTSRLLDPIY RIQGLDVPKL REHCRERPGA FPSEETLRGL GRRGFLQTLN ATLGCVLHRL ADLEQRLPKA QDLERSGLNI EDLEKLQMAR PNILGLRNNI YCMAQLLDNS DTAEPTKAGR GASQPPTPTP ASDAFQRKLE GCRFLHGYHR FMHSVGRVFS KWGESPNRSR R

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.