

## PPH3

## PODS® Human MCSF

## Description

The product contains the polyhedrin protein co-crystallized with Human MCSF. Macrophage Colony Stimulating Factor (MCSF) is a hematopoietic growth factor that is widely produced by a variety of cells. MCSF stimulates the proliferation and differentiation of hematopoietic stem cells into monocyte and macrophage cell types. MCSF also acts through the colony stimulating factor 1 receptor (CSF1R) to modulate processes involved in immunology, bone metabolism, fertility, and pregnancy. Human MCSF shows activity on mouse cells, however mouse MCSF shows no activity on human cells.

**Length** 203 aa

**Molecular Weight** 23.6 / 47.2 kDa

**Source** *Spodoptera frugiperda (Sf9) cell culture*

**Accession Number** P09603

## 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 < a href="http://www.cellgs.com/products/podsand8482-empty.html"> PODS® Empty crystals</a>, as the latter do not contain or release cargo protein.

## Specifications

**Alternative Names** Macrophage Colony Stimulating Factor, M-CSF, MGI-IM, CSF-1

**Endotoxin Level** <0.06 EU/ml as measured by gel clot LAL assay

**Formulation** PODS® were lyophilized from a volatile solution

**AA Sequence**

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MADVAGTSNR DFRGREQRLF NSEQQYNNNS KNSRPSTSLY KKAGFEEVSE YCSHMIGSGH
LQSLQLRLIDS QMETSCQITF EFVDQEQLKD PVCYLKKAFL LVQDIMEDETM RFRDNTPNAI
AIVQLQELSL RLKSCFTKDY EEHDKACVRT FYETPLQLLE KVKNVFNETK NLLDKDWNIF
SKNCNNFAE CSSQGHERQS EGS
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## 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.