

PPM1

PODS[®] Mouse IL-3

Description

The product contains the polyhedrin protein co-crystallized with Mouse IL-3. Also known as Interleukin-3, IL-3 is a cytokine that is produced by activated T cells and mast cells. It induces the differentiation of hematopoietic stem cells into myeloid precursor cells, such as erythrocyte, megakaryocyte, granulocyte, monocyte, and dendritic cells. IL-3 also functions in the nervous system and is important during the B-1 cell regulation of chronic inflammatory diseases.

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| Length | 185 aa |
| Molecular Weight | 20.9 kDa |
| Source | <i>Spodoptera frugiperda (Sf9) cell culture</i> |
| Accession Number | P01586 |

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

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| Alternative Names | Interleukin-3, IL3, IL-03, Mast-Cell Growth Factor, P-Cell Stimulating Factor |
| Endotoxin Level | <0.06 EU/ml as measured by gel clot LAL assay |
| Formulation | PODS [®] were lyophilized from a volatile solution |
| AA Sequence | MADVAGTSNR DFRGREQLRF NSEQYNYNNS KNSRPSTSLY KKAGFASISG RDTHRLTRTL NCSSIVKEII GKLPEPELKT DDEGPSLRNK SFRRVNLSKF VESQGEVDPE DRYVIKSNLQ KLNCCLP TSA NDSALPGVFI RDLDDFRKKL RFYVMHLNDL ETVLTSRPPQ PASGSVSPNR GTVEC |

Preparation and Storage

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| 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. |