

PPH191

PODS[®] Human IL-5

Description

The product contains the polyhedrin protein co-crystallized with Human IL-5. IL-5 is hematopoietic growth factor produced by CD4+ Th2 cells, mast cells, eosinophils and NK cells. It is a homodimeric, disulphide-linked protein which, acting via the IL-5 receptor (IL-5R), mediates eosinophil proliferation and activation, as well as stimulating B-cell growth and differentiation into immunoglobulin secreting cells. Human and Murine IL-5 are approximately 70% identical, and show cross-reactivity.

Length	160 aa
Molecular Weight	36.7 kDa
Source	<i>Spodoptera frugiperda (Sf9) cell culture</i>
Accession Number	P05113

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	Interleukin-5, Eosinophil differentiation factor (EDF), Eosinophil colony stimulating factor (Eo-CSF), B-cell differentiation factor I, T-cell replacing factor (TRF)
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 KKAGFIPTEI PTSALVKETL ALLSTHRTLL IANETLRIPV PVHKNHQLCT EEIFQGIGTL ESQTVQGGTV ERLFKNLSLI KKYIDGQKKK CGEERRRVNQ FLDYLQEFLG VMNTEWIIIES

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.