DATA SHEET

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PPM34 PODS® Mouse VEGF-164

Description

The product contains the polyhedrin protein co-crystalized with Mouse VEGF-164. Vascular Endothelial Growth Factor A (VEGF-A) is produced by a wide variety of cell types, including tumor and vascular cells. VEGF-A is a mediator of vascular growth, vascular permeability, and plays a role in stimulating vasodilation via nitric oxide-dependent pathways. VEGF-A has several alternatively spliced isoforms, with VEGF-164 being the most abundant. The VEGF-164 isoform is a secreted protein that acts on receptors VEGFR-1 and VEGFR-2 to modulate endothelial cell proliferation and angiogenesis.

Length	210 aa
Molecular Weight	49 kDa
Source	*Spodoptera frugiperda (Sf9) cell culture*
Accession Number	P15692-4

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	Vascular Endothelial Growth Factor, VEGF164, VEGF-A, VPF, glioma-derived endothelial cell mitogen
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 KKAGLMAPTT EGEQKSHEVI KFMDVYQRSY CRPIETLVDI FQEYPDEIEY IFKPSCVPLM RCAGCCNDEA LECVPTSESN ITMQIMRIKP HQSQHIGEMS FLQHSRCECR PKKDRTKPEN HCEPCSERRK HLFVQDPQTC KCSCKNTDSR CKARQLELNE RTCRCDKPRR

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.