DATA SHEET

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PPH6 PODS™ Human Activin A

Description

Activin A is a member of the Transforming Growth Factor beta (TGF-β) family of proteins with a wide range of biological activities. Activins are produced in many tissue types including the skin, gonads, lungs, and pituitary gland. Activins interact with receptor type I and type II serine/threonine protein kinases, to activate SMAD signaling and regulate diverse cellular functions, such as cell proliferation, differentiation, wound healing, apoptosis, and metabolism. Activin A is a homodimer comprised of two activin beta A chains. Human Activin A shares 100% amino acid sequence identity with mouse, rat, porcine, bovine, and feline Activin A proteins.

Length	155 aa
Molecular Weight	35 kDa
Source	*Spodoptera frugiperda (Sf9) cell culture*
Accession Number	P08476

Usage Recommendation

PODS™ crystals provide a depot of proteins which are steadily secreted. It has been estimated that the biological activity of 50 million PODS™ 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™ crystals, there are still more than 50% of these peak levels still present in the culture system. Ultimately, the amount of PODS™ crystals that is optimal for a particular experiment should be determined empirically, using 50 million PODS™ crystals equivalence to 3.3 µg of standard growth factor as a good starting point.

Specifications

Alternative Names	Inhibin beta-1, FRP, FSH-releasing protein, EDF, erythroid differentiation factor, FRP, follicle stimulating hormone releasing protein, Activin-A
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 KKAGFMGNIC AKKQFFVSFK DIGWNDWIIA PSGYHANYCE GECPSHIAGT SGSSLSFHST VINHYRMRGH SPFANLKSCC VPTKLRPMSM LYYDDGQNII KKDIQNMIVE ECGCS

Preparation and Storage

Reconstitution	PODS™ proteins crystals may be reconstituted at 200 million PODS™/ml in water. 20% glucose has a buoyant density closer to PODS™ protein crystals and can be useful for aliquoting. PODS™ protein crystals are highly stable when stored in aqueous solution (pH range 6-8).
Stability and Storage	Upon receipt, store at 4°C. PODS™ proteins crystals are stable for at least 1 year when dry and 6 months when resuspended.