

PPM29 PODS® Mouse Activin A

Description

The product contains the polyhedrin protein co-crystallized with Mouse Activin A. 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. Mouse Activin A shares 100% amino acid sequence identity with human, rat, porcine, bovine, and feline Activin A proteins.

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| Length | 155 aa |
| Molecular Weight | 35 kDa |
| Source | <i>Spodoptera frugiperda (Sf9) cell culture</i> |
| Accession Number | P08476 |

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 μ g 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 μ g 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](http://www.cellgs.com/products/podsand8482-empty.html), as the latter do not contain or release cargo protein.

Specifications

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| 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 NSEQYNNNS KNSRPSTSLY KKAGFMGNIC AKKQFFVSFK DIGWNDWIIA PSGYHANYCE GECPSHIAGT SGSSLSFHST VINHYRMRGH SPFANLKSCC VPTKLRPMSM LYYDDGQNII KKDIQNMIVE ECGCS |

Preparation and Storage

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| 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. |