



## Recombinant Human Activin A

Catalog Number: 100-43

Accession Number: P08476

### Specifications and Uses:

**Alternate Names:** Inhibin beta-1, FRP, FSH-releasing protein

**Description:**

Activin A is a member of the TGF beta family of proteins produced by many cell types throughout development. Activins interact with Type I and Type II serine/threonine kinases to signal to SMAD proteins to regulate a variety of functions, including cell proliferation, differentiation, wound healing, apoptosis, metabolism, etc. Activin A is a homodimer of two beta A chains and is not biologically active until the N terminal propeptide is cleaved from each. Human Activin A has 100% amino acid sequence identity to mouse, rat, porcine, bovine and feline proteins. Recombinant human Activin A is a non-glycosylated homodimer, containing two 117 amino acid chains, with a total molecular weight of 26.2 kDa.

**Source:** *E.coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation and Stability:**

Recombinant human Activin A is lyophilized with 0.02% TFA.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water, which can then be further diluted to other aqueous solutions.

**Protein Content and Purity (typically ≥ 95%) determined by:**

HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

**Endotoxin Level:**

Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.

**Biological Activity:**

The activity is determined by the ability to induce cytotoxicity of MPC-11 cells and is typically less than 2 ng/mL.

**AA Sequence:**

MGLECDGKVN ICCKKQFFVS FKDIGWNDWI IAPSGYHANY CEGECPSHIA GTSGSSLSFH STVINHYRMR GHSPFANLKS  
CCVPTKLRPM SMLYYDDGQN IIKKDIQNMI VEECGCS

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**