

# Product Sheet

## Activin A, human recombinant

<b>Catalog #</b>	ACT-005; ACT-025; ACT-100
<b>Description</b>	<p>Activin A is a member of the TGF<math>\beta</math> superfamily. It is a 26 kDa disulfide-linked homodimer of two <math>\beta</math>A chains, each containing 116 amino acid residues.</p> <p>Activin A is widely used in stem cell research. It has been used to induce the differentiation of embryonic stem cells to the definitive endoderm. The biological activities of Activin A can be neutralized by diffusible TGF-<math>\beta</math> antagonists, Follistatin (also available from StemRD).</p> <p>StemRD's Activin A is made in human 293 cells, which renders human-specific post-translational modifications. We purified this product through a series of chromatography including HPLC to near homogeneity.</p>
<b>Source</b>	Human 293 cells
<b>Formulation</b>	Lyophilized in sterile filtered solution of acetonitrile/TFA and PBS
<b>Reconstitution</b>	Before reconstitution, we recommend a brief spin to drive down any material dislodged from the bottom of the tube. The lyophilized protein should be reconstituted in sterile H <sub>2</sub> O. Further dilutions should be made in buffer or medium containing carrier proteins, such as albumin or serum.
<b>Stability</b>	The lyophilized protein is stable for at least 1 year if stored at -80 degree C. Reconstituted protein is stable for at least 1 month at 4 degree C, but should be stored in aliquots at -80 degree C for longer term. Avoid repeated freeze/thaw.
<b>Purity</b>	Greater than 95% by SDS-PAGE and HPLC analysis
<b>Biological Activity</b>	The activity was determined by using a SMAD reporter gene assay in human 293 cells. The EC <sub>50</sub> ranges from 0.5 - 2.0 ng/ml.
<b>Country of Origin</b>	USA

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