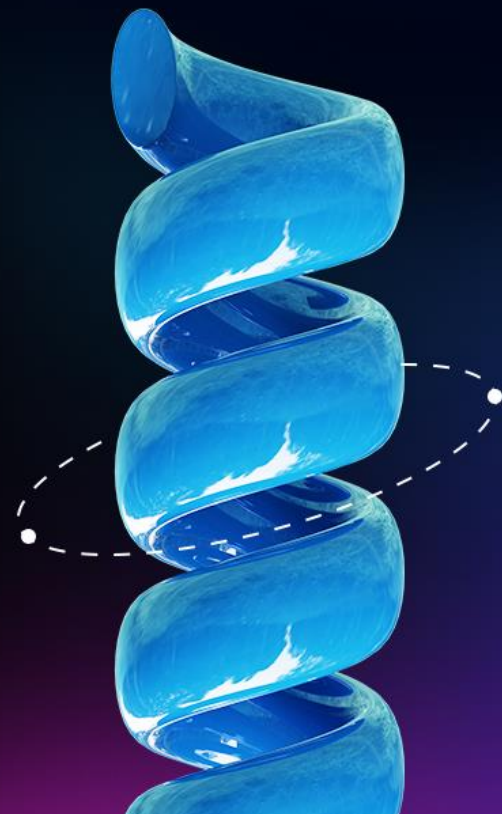




Redefining Industry Standards

WITH NEXT GENERATION **ACTIVIN A**



Renowned R&D Systems™ quality with Bio-Techne Innovation

For almost 40 years, R&D Systems™, a Bio-Techne brand, has strived to offer high quality proteins to enable your scientific research. Over the years, we continuously improve by incorporating scientific advancements in protein purification and cell culture. Rather than just meeting industry standards, we're on a mission to define them. Our modernized

methods safeguard your access to high-quality recombinant proteins throughout your research journey.

Our **next generation** of cytokines and growth factors merges our renowned quality and innovation, offering you an unparalleled combination of dependability and stability of supply. These best-in-class proteins ensure your research remains at the forefront of progress. Consider our **Next Generation Activin A** ([Catalog # 11348-AC](#)) and explore the key benefits!

Key Benefits of Our Next Generation Activin A Protein



Increased Supply: Improved manufacturing processes allow for greater scalability & robust supply chain.



Same Source: Our legacy and next generation proteins are derived from the expression system.



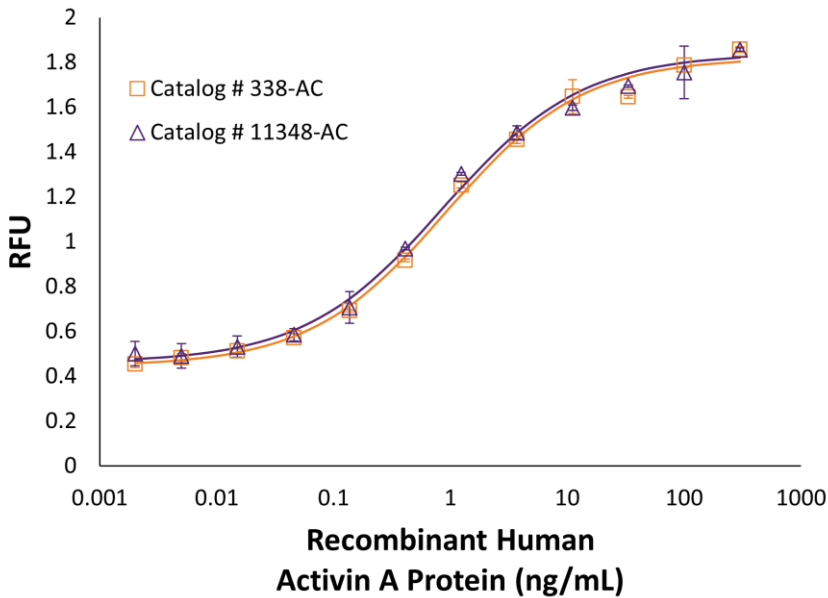
Time & Cost-Savings: Cost-effective proteins with larger lot sizes, allowing for less time spent on bridging studies



Equivalent Bioactivity: Our next generation Activin A protein displays the same activity as our legacy protein.

[Learn more | bio-techne.com/proteins/reagents/nextgenerationproteins](https://www.bio-techne.com/proteins/reagents/nextgenerationproteins)

Figure 1: Analysis of Next Generation Activin A Protein Bioactivity



New Recombinant Human Activin A Protein Activity. The bioactivities of the legacy ([Catalog # 338-AC](#)) and the new ([Catalog # 11348-AC](#)) Recombinant Human Activin A proteins were compared and measured by their ability to induce hemoglobin expression in K562 human chronic myelogenous leukemia cells. Based on this assay, both proteins display similar activity.

Table: Comparison of Legacy and Next Generation Recombinant Human Activin A Proteins

Specifications	338-AC (Legacy)	11348-AC (Next Generation)
Activity	Measured by its ability to induce hemoglobin expression in K562 human chronic myelogenous leukemia cells. Schwall, R.H. et al. (1991) Method Enzymol. 198:340. The ED50 for this effect is 0.2-1.2 ng/mL.	Measured by its ability to induce hemoglobin expression in K562 human chronic myelogenous leukemia cells. Schwall, R.H. et al. (1991) Method Enzymol. 198:340. The ED50 for this effect is 0.2-1.6 ng/mL
Source	Chinese Hamster Ovary cell line, CHO-derived Activin A protein Gly311-Ser426	Chinese Hamster Ovary cell line, CHO-derived human Activin A protein Gly311-Ser426
Purity	>95%, by SDS-PAGE	>95%, by SDS-PAGE
N-terminal Sequence	Gly311	Gly311
Predicted Molecular Mass	13 kDa	13 kDa
Pack Sizes	10, 50, 500 ug, 1 mg	10, 20, 50, 100, 500 ug, 1 mg
Formulation	Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA.	Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with Trehalose.
Endotoxin	<0.01 EU per 1 µg of the protein by the LAL method.	<0.01 EU per 1 µg of the protein by the LAL method.