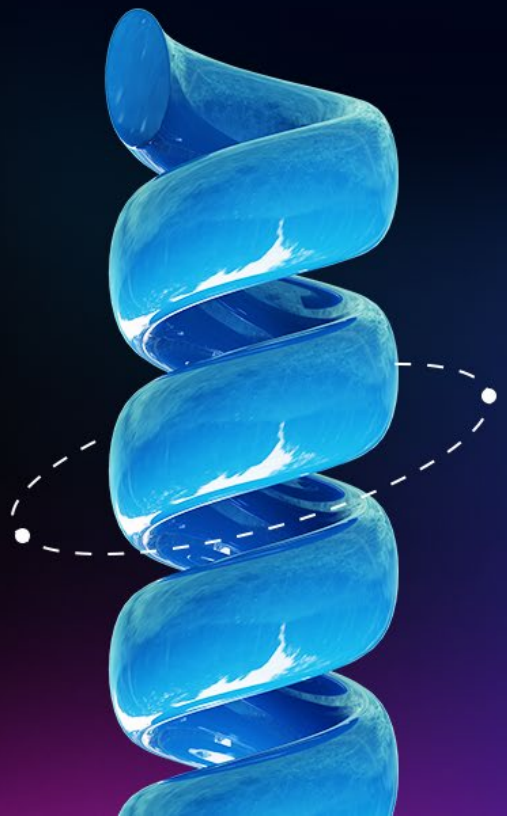
bio-techne®

Redefining Industry Standards

WITH NEXT GENERATION SCF



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.

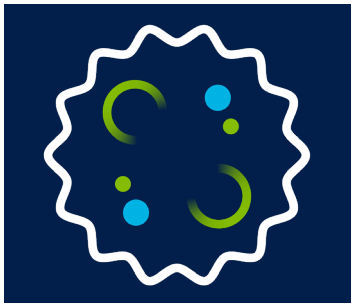
Rather than just meeting industry standards, we're on a mission to define them. Our modernized methods safeguard your access to high-quality recombinant proteins throughout your research journey.

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 SCF** (Catalog # BT-SCF) and explore the key benefits!

Key Benefits of Our Next Generation SCF Protein

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

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

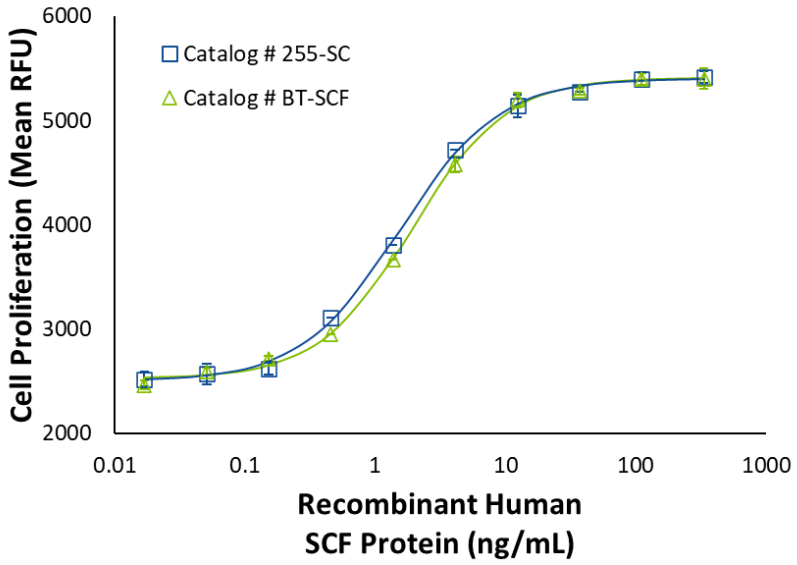


Same Source: Our legacy and next generation proteins are derived from the same *E. coli* expression system.

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

Learn more | bio-techne.com/proteins/reagents/nextgenerationproteins

Figure 1: Analysis of Next Generation SCF Protein Bioactivity



New Recombinant Human SCF Protein Activity. The bioactivities of the original (Catalog # 255-SC) and the new (Catalog # BT-SCF) Recombinant Human SCF proteins were compared using a cell proliferation assay to stimulate TF-1 human erythroleukemic cell line. Based on this assay, both proteins display similar activity.

Table: Comparison of Legacy and Next Generation Recombinant Human SCF Proteins

Specifications	255-SC (Legacy)	BT-SCF (Next Generation)
Activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. Kitamura, T. et al. (1989) J. Cell Physiol. 140:323. The ED_{50} for this effect is 1-5 ng/mL.	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. Kitamura, T. et al. (1989) J. Cell Physiol. 140:323. The ED_{50} for this effect is 1-8 ng/mL.
Source	*E. coli*-derived human SCF/c-kit Ligand protein Glu26-Ala189, with an N-terminal Met	*E. coli*-derived human SCF/c-kit Ligand protein Glu26-Ala189, with a N-terminal Met
Purity	>97%, by SDS-PAGE	>97%, by SDS-PAGE
N-terminal Sequence	Met	Met
Predicted Molecular Mass	19 kDa	19 kDa
Pack Sizes	10, 50, 200 µg, 1 mg	10, 50, 100, 500 µg, 1 mg
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS.	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.	<0.10 EU per 1 µg of the protein by the LAL method.

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