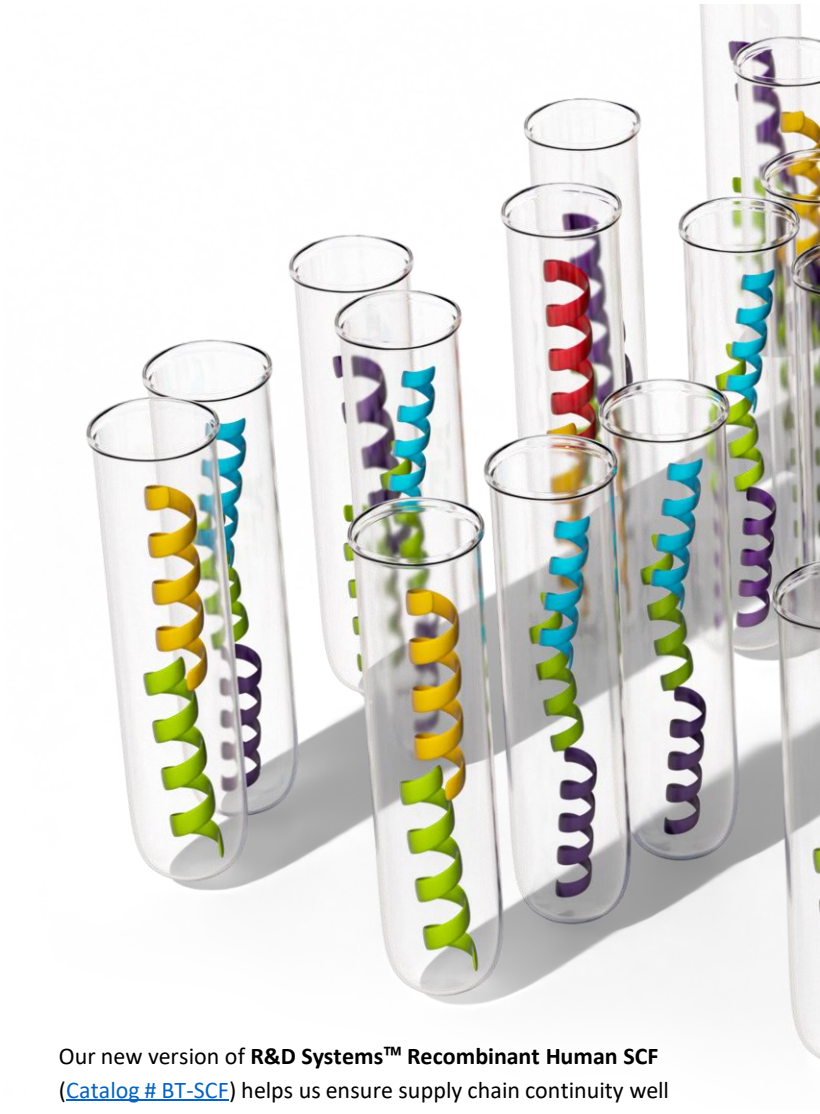
bio-techne®

R&D SYSTEMS



Bigger Scale
Optimized Proteins

Achieve Supply Security with Scalable **Recombinant Human SCF Protein**

For more than 25 years, R&D Systems™ has strived to offer the best protein products on the market to enable your scientific research. As our company has grown, so has our customers' needs. Advances in protein purification and cell culture techniques has given us the opportunity to improve our products for better protein yield per batch.

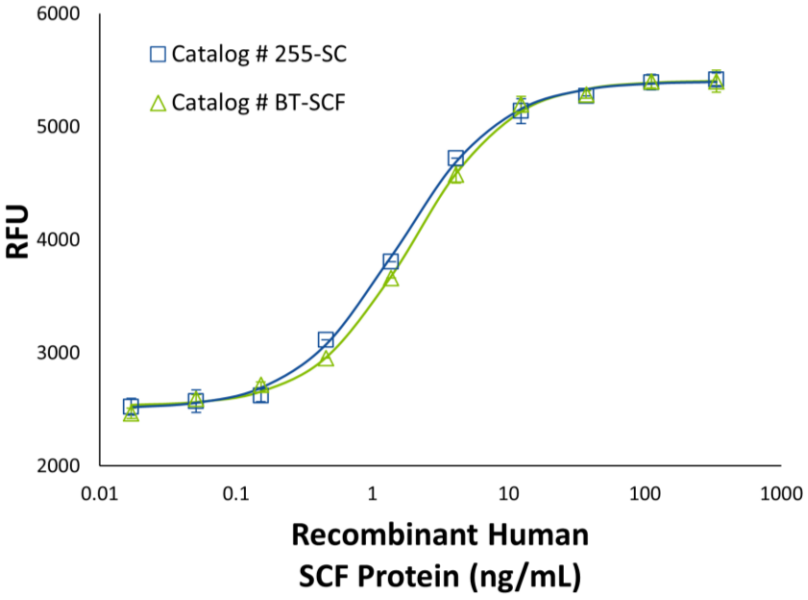
Our new version of **R&D Systems™ Recombinant Human SCF** (Catalog # BT-SCF) helps us ensure supply chain continuity well into the future without sacrificing quality. Consider the key benefits below and make the switch from our Original to New SCF.

Key Benefits of Our New Recombinant Human SCF Protein

- **Economical:** Lower manufacturing costs allow us to pass savings on to you.
- **Equivalent Bioactivity:** The new SCF protein displays similar activity as the original SCF protein.
- **Identical Expression System:** Both the original and the new SCF proteins are expressed and purified from E. coli.
- **Scalable:** Improved manufacturing processes allow for greater scalability and a robust supply chain.
- **High Lot-to-Lot Consistency:** Each new lot is tested side-by-side with previous lots and with a control lot to ensure highest lot-to-lot consistency for a product you can trust.

Learn more | rndsystems.com/proteins

Figure 1: Analysis of New Human Recombinant 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 Original and New Recombinant Human SCF Proteins

Specifications	255-SC (Original)	BT-SCF (New Version)
Activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. Kitamura, T. et al. (1989) J. Cell Physiol. 140:323. The ED50 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 ED50 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 visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.	>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
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.