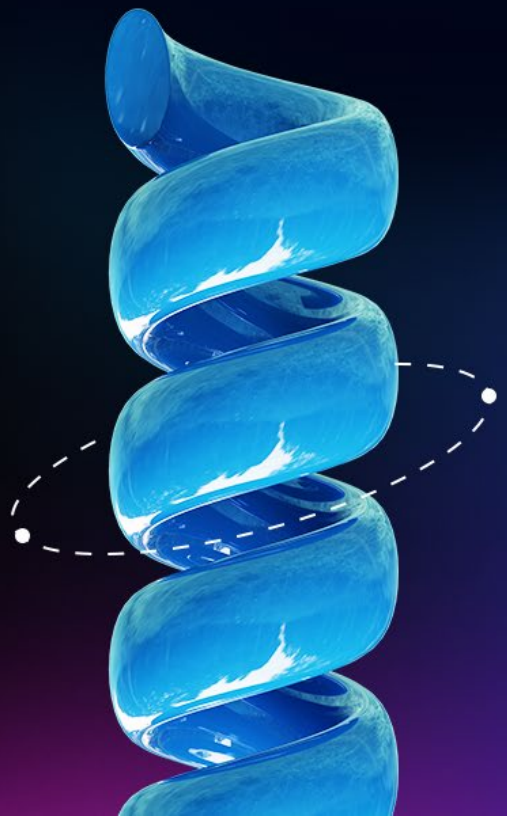
bio-techne®

Redefining Industry Standards

WITH NEXT GENERATION VEGF



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.

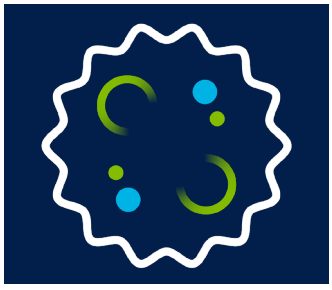
Rather than just meeting industry standards, we're on a mission to define them. Our modernized methods safeguard your access to high-quality recombinant proteins throughout your research journey.

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

Key Benefits of Our Next Generation VEGF 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.

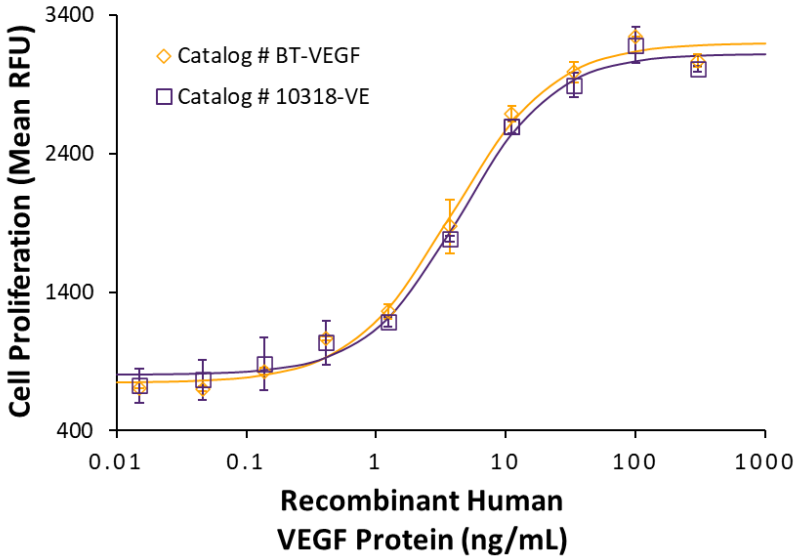


Same Source: Our legacy and next generation proteins are derived from the same *E. coli* expression system.

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

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

Figure 1: Analysis of Next Generation VEGF Protein Bioactivity



New Recombinant Human VEGF Protein Activity The Legacy (Catalog # 10318-VE) and New Recombinant Human VEGF 165 Protein (Catalog # BT-VEGF) demonstrate similar bioactivity in their ability to stimulate proliferation in HUVEC human umbilical vein endothelial cells.

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

Specifications	10318-VE (Legacy)	BT-VEGF (Next Generation)
Activity	Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. Conn, G. et al. (1990) Proc. Natl. Acad. Sci. USA 87:1323. The ED_{50} for this effect is 1.50-12.0 ng/mL.	Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. Conn, G. et al. (1990) Proc. Natl. Acad. Sci. USA 87:1323. The ED_{50} for this effect is 1.50-12.0 ng/mL.
Source	*E. coli*-derived human VEGF protein Ala27-Arg191	*E. coli*-derived human VEGF protein Ala27-Arg191
Purity	>95%, by SDS-PAGE	>97%, by SDS-PAGE
N-terminal Sequence	Met & Pro28	Met & Pro28
Predicted Molecular Mass	19 kDa	19 kDa
Pack Sizes	10, 50, 100, 250, 500 µg, 1 mg	50, 100, 250, 500 µg, 1 mg
Formulation	Lyophilized from a 0.2 µm filtered solution in HCl.	Lyophilized from a 0.2 µm filtered solution in Sodium Acetate.
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.	<0.01 EU per 1 µg of the protein by the LAL method.

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