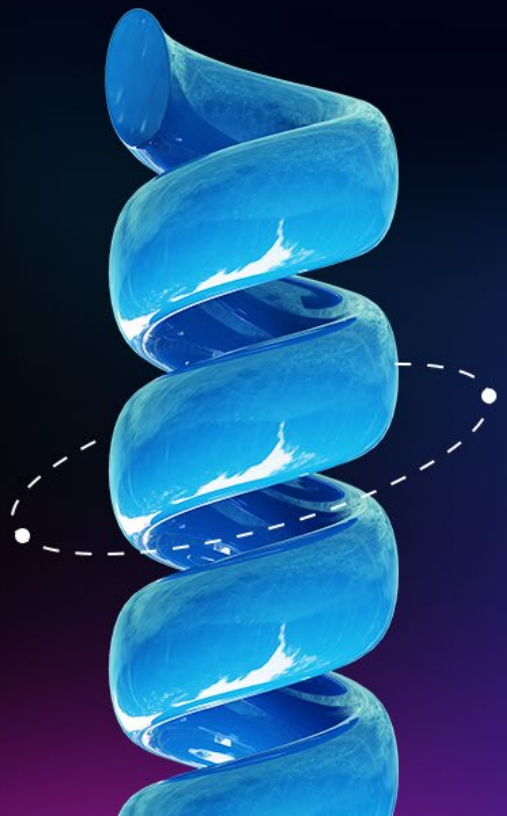
bio-techne®

Redefining Industry Standards

WITH NEXT GENERATION Betacellulin



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

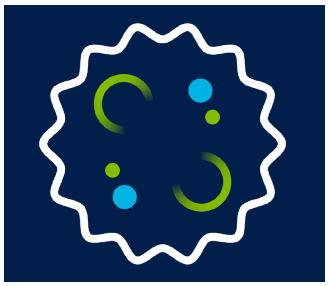
For almost 40 years, R&D Systems™, a Bio-Techne brand, has strived to offer high quality proteins to enable your scientific research. Over the years, we continuously improve by incorporating scientific advancements in protein purification and cell culture.

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

Key Benefits of Our Next Generation Betacellulin Protein

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



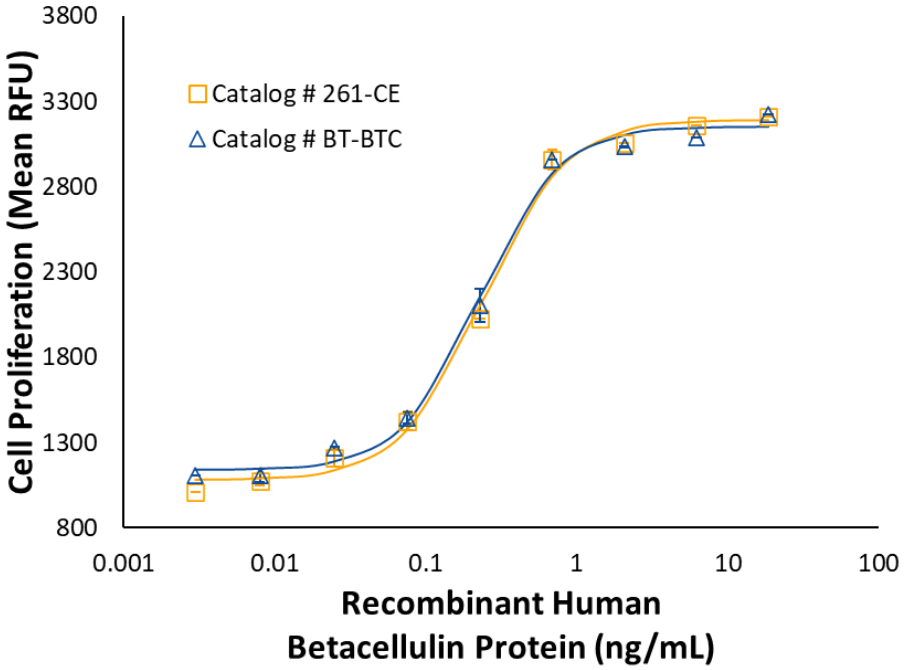
Same Source: Our legacy and next generation proteins are derived from the same expression system.

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

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

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

Figure 1: Analysis of Next Generation Betacellulin Protein Bioactivity



New Recombinant Human Betacellulin Protein Activity. The bioactivities of the original (Catalog # 261-CE) and the new (Catalog # BT-BTC) Recombinant Human Betacellulin proteins were compared in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. Based on this assay, both proteins display similar activity.

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

Specifications	261-CE (Legacy)	BT-BTC (Next Generation)
Activity	Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED_{50} for this effect is 0.15-0.6 ng/mL.	Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells The ED_{50} for this effect is 0.1-1.5 ng/mL.
Source	*E. coli*-derived human Betacellulin/BTC protein Asp32-Tyr111	*E. coli*-derived human Betacellulin/BTC protein Asp32-Gln118, with an N-terminal Met
Purity	>97%, by SDS-PAGE	>97%, by SDS-PAGE
N-terminal Sequence	Asp32	Met-Asp32
Predicted Molecular Mass	9 kDa	9.9 kDa
Pack Sizes	10, 50, 250 µg	10, 50, 250 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	<0.10 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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