## **biotechne**<sup>®</sup>

# **Redefining Industry Standards**

WITH NEXT GENERATION IL-15

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

For almost 40 years, R&D Systems<sup>™</sup>, 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 IL-15** (<u>Catalog #</u> <u>BT-015</u>) and explore the key benefits!

#### **Key Benefits of Our Next Generation IL-15 Protein**



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



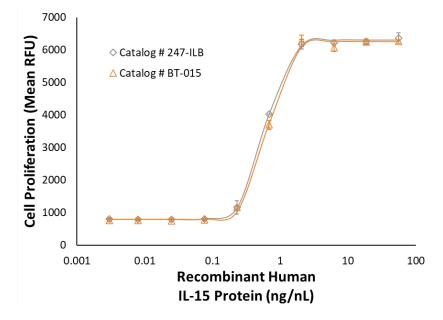
**Same Source:** Our legacy and next generation proteins are derived from the expression system.



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



**Equivalent Bioactivity:** Our next generation IL-15 protein displays the same activity as our legacy protein.



#### Figure 1: Analysis of Next Generation IL-15 Protein Bioactivity

New Recombinant Human IL-15 Protein Activity. The bioactivities of the legacy (Catalog # 247-ILB) and the new (Catalog # BT-015) Recombinant Human IL-15 proteins were compared and measured by their ability to stimulate cell proliferation in the MO7e human megakaryocytic leukemic cell line. Based on this assay, both proteins display similar activity.

### Table: Comparison of Legacy and Next Generation Recombinant Human IL-15Proteins

Specifications	247-ILB (Legacy)	BT-015 (Next Generation)
Activity	Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The $ED_{50}$ for this effect is 0.3-2.6 ng/mL.	Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED <sub>50</sub> for this effect is 0.3-2.6 ng/mL.
Source	<i>E. coli-</i> derived human IL-15 protein Asn49-Ser162	<i>E. coli</i> -derived human IL-15 protein Asn49-Ser162
Purity	>97%, by SDS-PAGE	>97%, by SDS-PAGE
N-terminal Sequence	Asn49	Asn49
Predicted Molecular Mass	12.5 kDa	13 kDa
Pack Sizes	5, 25 µg	10, 25, 100, 250 µg, 1 mg
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS.	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose.
Endotoxin	<0.10 EU per 1 $\mu$ g of the protein by the LAL method.	<0.10 EU per 1 $\mu g$ of the protein by the LAL method.