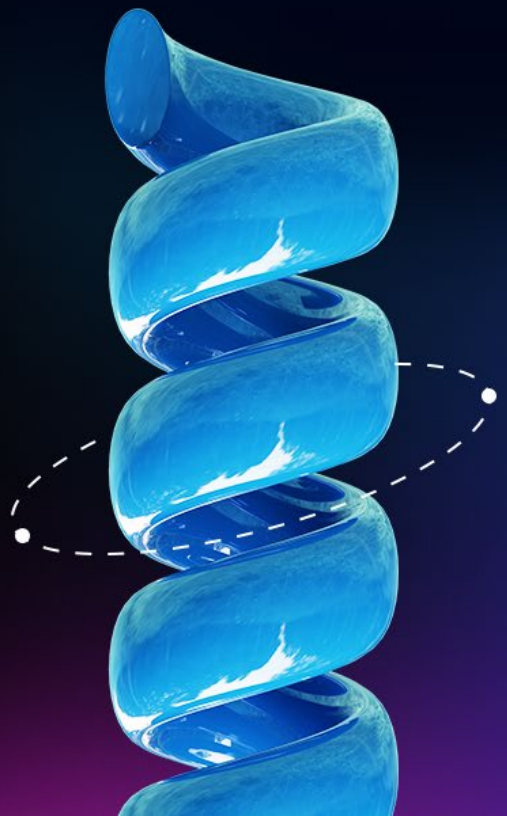
bio-techne®

Redefining Industry Standards

WITH NEXT GENERATION CD40 Ligand



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.

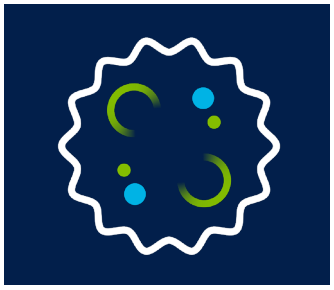
Rather than just meeting industry standards, we're on a mission to define them. Our modernized methods safeguard your access to high-quality recombinant proteins throughout your research journey.

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 CD40 Ligand** (Catalog # 6420-CLB) and explore the key benefits!

Key Benefits of Our Next Generation CD40 Ligand 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.

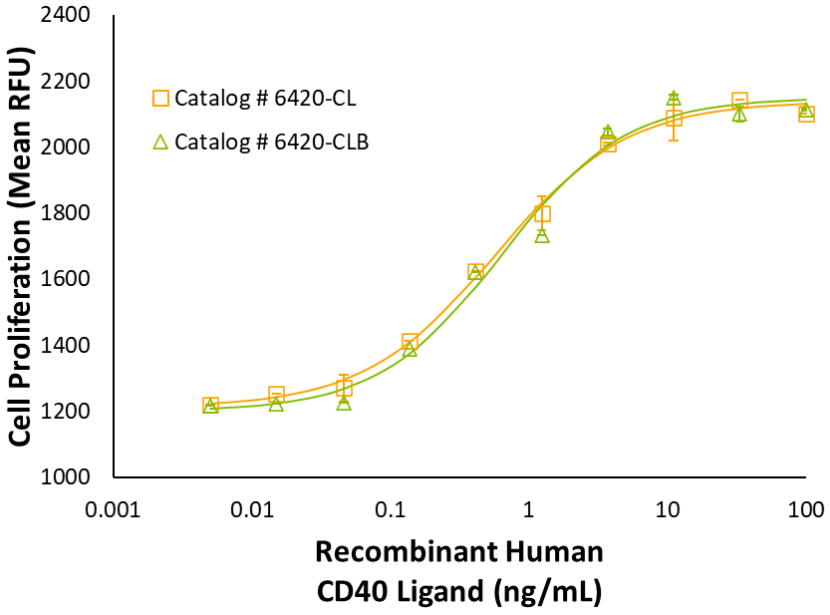


Same Source: Our legacy and next generation proteins are derived from the same HEK293 expression system.

Equivalent Bioactivity: Our next generation CD40 Ligand protein displays the same activity as our legacy protein.

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

Figure 1: Analysis of Next Generation CD40 Ligand Protein Bioactivity



New Recombinant Human CD40L Protein Activity. The bioactivities of the original (Catalog # 6420-CL) and the new (Catalog # 6420-CLB) Recombinant Human CD40L proteins were compared using a cell proliferation assay using enriched human B cells in the presence of IL-4. Based on this assay, both proteins display similar activity.

Table: Comparison of Legacy and Next Generation Recombinant Human CD40 Ligand Proteins

Specifications	6420-CL (Original)	6420-CLB (New Version)
Activity	Measured in a cell proliferation assay using enriched human B cells in the presence of IL-4. The ED_{50} for this effect is 0.2-1.2 ng/mL in the presence of Recombinant Human IL-4 (Catalog # 204-IL) and a cross-linking HA Tag antibody (Catalog # MAB060).	Measured in a cell proliferation assay using enriched human B cells in the presence of IL-4. The ED_{50} for this effect is 0.25-3.0 ng/mL in the presence of Recombinant Human IL-4 (Catalog # 204-IL) and a cross linking HA Tag Antibody (Catalog # MAB060).
Source	Human embryonic kidney cell, HEK293-derived human CD40 Ligand/TNFSF5 protein	Human embryonic kidney cell, HEK293-derived human CD40 Ligand/TNFSF5 protein
Purity	>95%, by SDS-PAGE	>95%, by SDS-PAGE
N-terminal Sequence	Tyr	Tyr
Predicted Molecular Mass	21.6 kDa	22 kDa
Pack Sizes	25 ug	50 ug
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS and EDTA.	Lyophilized from a 0.2 µm filtered solution in PBS and EDTA with Trehalose.
Endotoxin	<0.01 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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