Simplify Your T Cell Culture With Liquid Cytokines

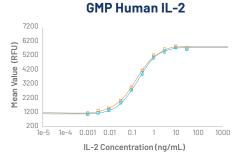
Ready-to-use formulations no reconstitution!

Streamline your cell culture process with our new liquid frozen formulations of animal-free RUO and GMP IL-2, IL-7, and IL-15. These ready-to-use cytokines eliminate reconstitution errors while still providing the same potency and consistency as our lyophilized proteins. Simply thaw and add to your cell culture.

We've conducted extensive stability testing and optimized protein concentrations to ensure our liquid cytokines are effective and reliable over time.

- Streamlined process: Save time and materials
- Increased reproducibility: Eliminate reconstitution errors
- Equivalent bioactivity: Easily substitute for lyophilized proteins
- Stability: Rely on full bioactivity for a minimum of 6 months as supplied; extended studies ongoing
- · Samples available on request

# **Equivalent Bioactivity Between Liquid and Lyophilized Cytokines**

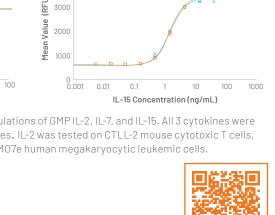






Direct comparisons of the liquid frozen (turquoise circles) and lyophilized (orange squares) formulations of GMP IL-2, IL-7, and IL-15. All 3 cytokines were tested in cell proliferation assays with no difference in bioactivity observed in any of the cytokines. IL-2 was tested on CTLL-2 mouse cytotoxic T cells, IL-7 was tested on PHA-activated human peripheral blood lymphocytes, and IL-15 was tested on M07e human megakaryocytic leukemic cells.





25 µg

FOR PRECLINICAL OR CLINICAL EX VIVO USE

123456789123

25 µg

123456789123

1 ma

OR PRECLINICAL OR LINICAL EX VIVO USE

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# Similar Phenotype with Liquid and Lyophilized Cytokines

#### **Fold Expansion at Harvest** 80 90.4 87.5 70 90.1 60 Fold Expansion 50 40 30 20 78.5 10 0 Lyophilized Lyophilized Liauid Liauid No Cytokines IL-2 IL-7/15 Control

### **Cell Phenotype at Harvest** 100 90 80 70 60 ■ IL-2 Lyophilized %CCR7+ 50 ■IL-2 Liquid 40 ■ IL-7/15 Lyophilized 30 ■ IL-7/15 Liquid 20 10 0

CD8+

CD4+

Primary human T cell expansion was evaluated using both liquid format and lyophilized cytokines. Cells were expanded in G-Rex® 6M well plates using complete GMP Human T Cell Expansion Media supplemented with either 200 IU/mL GMP IL-2 or a combination of 10 ng/mL of both GMP IL-7 and GMP IL-15 in both liquid and lyophilized formats. After 9 days of expansion, cells were assessed for fold expansion and viability (left; data labels are mean % viability) as well as for memory phenotype using flow cytometry (right).

# **QC Specifications and Ordering Information**

GMP IL-2	Lyophilized	Liquid
Formulation	Lyophilized from a 0.2 µm filtered solution in sodium acetate with Trehalose	0.50 mg/mL, 0.2 μm filtered solution in sodium acetate
Stability	A minimum of 12 months when stored at $\leq$ -20 $^{\circ}$ C as supplied	A minimum of 6 months when stored at $\leq$ -65 °C as supplied
Catalog #	BT-002-GMP	BT-002-GMP/LQ
Pack Size	50 μg, 1 mg	50 μg, 1 mg
GMP IL-7	Lyophilized	Liquid
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose	0.50 mg/mL, 0.2 μm filtered solution in PBS
Stability	A minimum of 12 months when stored at ≤ -20 °C as supplied	A minimum of 6 months when stored at ≤ −65 °C as supplied
Catalog #	BT-007-GMP	BT-007-GMP/LQ
Pack Size	25 μg, 1 mg	25 μg
GMP IL-15	Lyophilized	Liquid
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose	0.50 mg/mL, 0.2 μm filtered solution in PBS
Stability	A minimum of 12 months when stored at ≤ -20 °C as supplied	A minimum of 6 months when stored at ≤ -65 °C as supplied
Catalog #	BT-015-GMP	BT-015-GMP/LQ
Pack Size	25 μg, 1 mg	25 μα

Stability data for liquid frozen cytokines available on request. Liquid frozen cytokines only available in the US, Canada, and Europe

To receive IL-7, IL-15 or IL-2 liquid cytokine samples, please contact our team info@scaleready.com

### scaleready.com

Contact us: info@scaleready.com

Scale Ready is a Joint Venture formed by Bio-Techne, Fresenius Kabi, and Wilson Wolf. Combining selected offerings from the three partners, the Scale Ready manufacturing platform combines tools and technologies for cell culture, cell activation and expansion, gene editing, and cell processing.

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