

biotechne®

NEW!

Ready-to-Use GMP Cytokines

To Fit Your Immune Cell Therapy Manufacturing Workflow

To streamline your workflow and enable your program to reach the clinic faster, we now offer our best-selling cytokines in three convenient ready-to-use formats. Select from a closed system Propak bag, a single-use process-sized vial, or a liquid vial formulation, allowing you to customize your reagent formats to precisely match your workflow requirements. All three formats are compatible with any immune cell manufacturing system (including G-Rex).



ProPak Closed System

- Closed system cytokine delivery without aliquoting or reconstitution
- Weldable tubes compatible with most bagged media for use in 1L G-Rex bioreactor or similar systems

Process-Sized Vials

- Eliminate aliquoting steps
- Ensure greater consistency
- Reduce manual touchpoints and hands-on time

Liquid Cytokines

- Eliminate reconstitution steps
- Remove risk of errors
- No need to maintain sterile reconstitution buffer-just thaw and add to cultures
- Optimized concentrations and extensive stability testing

Available Ready-to-Use Animal-Free GMP and RUO Proteins

Protein Name	Process-Sized		Liquid	
	GMP Propak (Liquid in Bag)	GMP Vial (Lyophilized)	GMP Vial	RUO Vial
IL-2	PPK-002-GMP-010		BT-002-GMP-050/LQ , BT-002-GMP-01M/LQ	BT-002-AFL-050/LQ (50 µg), BT-002-AFL-01M/LQ (1 mg)
IL-7	PPK-007-GMP-010	BT-007-GMP-010 (10 µg)	BT-007-GMP-025/LQ	BT-007-AFL-025/LQ (25 µg)
IL-15	PPK-015-GMP-010	BT-015-GMP-010 (10 µg)	BT-015-GMP-01M/LQ, BT-015-GMP-025/LQ	BT-015-AFL-025/LQ (25 µg)
IL-21			BT-021-GMP-025/LQ, BT-021-GMP-01M/LQ	BT-021-AFL-025/LQ (25 µg) BT-021-AFL-01M/LQ (1 mg)

Larger pack sizes of lyophilized GMP proteins are also available



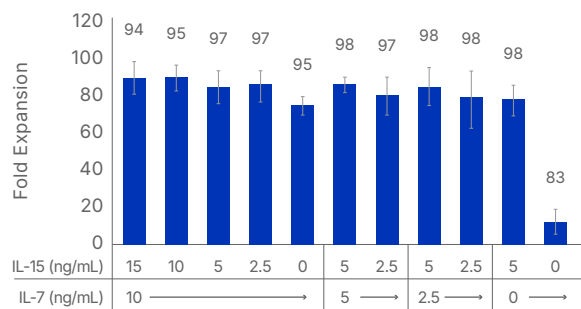
Learn More

Scan the QR Code or visit:

[bio-technne.com/reagents/proteins/ready-to-use](https://www.biotechne.com/reagents/proteins/ready-to-use)

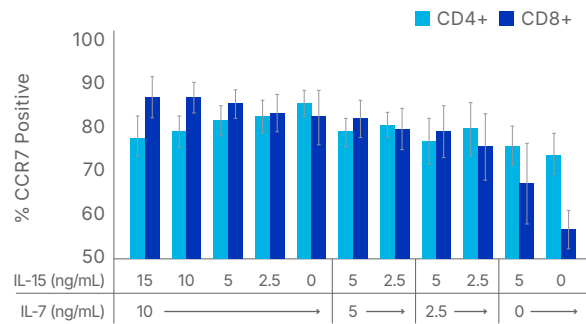
Our scientists determined the concentrations of IL-7 and IL-15 that yield the optimum balance of T cell expansion and memory phenotype. Based on these findings, we created process sized cytokines, enabling you to generate your desired phenotype while requiring less protein and producing less waste.

T Cell Expansion in IL-7 and IL-15



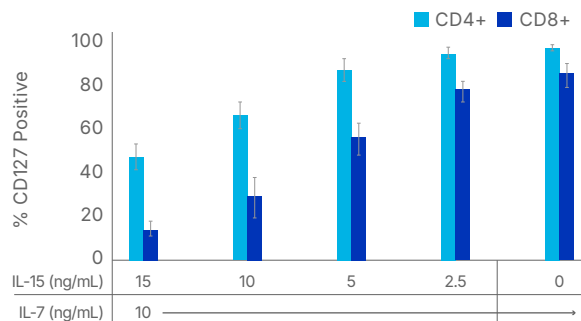
- The presence of IL-15 is necessary to maintain T cell growth
- Cells do not expand in the absence of both cytokines

Average T_{SCM}/T_{CM} Population



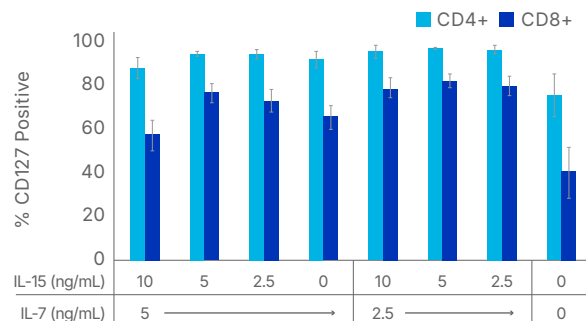
- The presence of IL-7 is necessary to maintain CCR7 expression
- Characterizing cells by CD45RA and CCR7 revealed minimal difference in T cell memory phenotype

CD127 in IL-15 Titration



- Overdosing of IL-15 can decrease expression of the key memory marker CD127, especially in CD8⁺ T cells
- CD127 expression was more sensitive to IL-15 titration

CD127 in IL-7 Titration



- CD127 expression is relatively stable independent of IL-7 titration

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