

# Use cGMP-Manufactured ImmunoCult™-XF

For Your T Cell Therapy Development

## Expand Human T Cells for Use in Clinical Applications

Enhance cell therapy development by using high-performance, cGMP-manufactured ImmunoCult™-XF medium to culture human T cells. Designed for robust expansion of T cells for use in clinical applications, without the need for supplementation with serum or serum derivatives, this medium is also phenol red-free, xeno-free and has no added cytokines—providing complete flexibility for your workflows.

T cells can be harvested after just 10 - 12 days of culture and are able to produce cytokines, including IFN- $\gamma$  and IL4, upon restimulation. ImmunoCult™-XF is ready-to-use and produced according to current GMP guidelines, ensuring the highest quality and consistency for reproducible results.

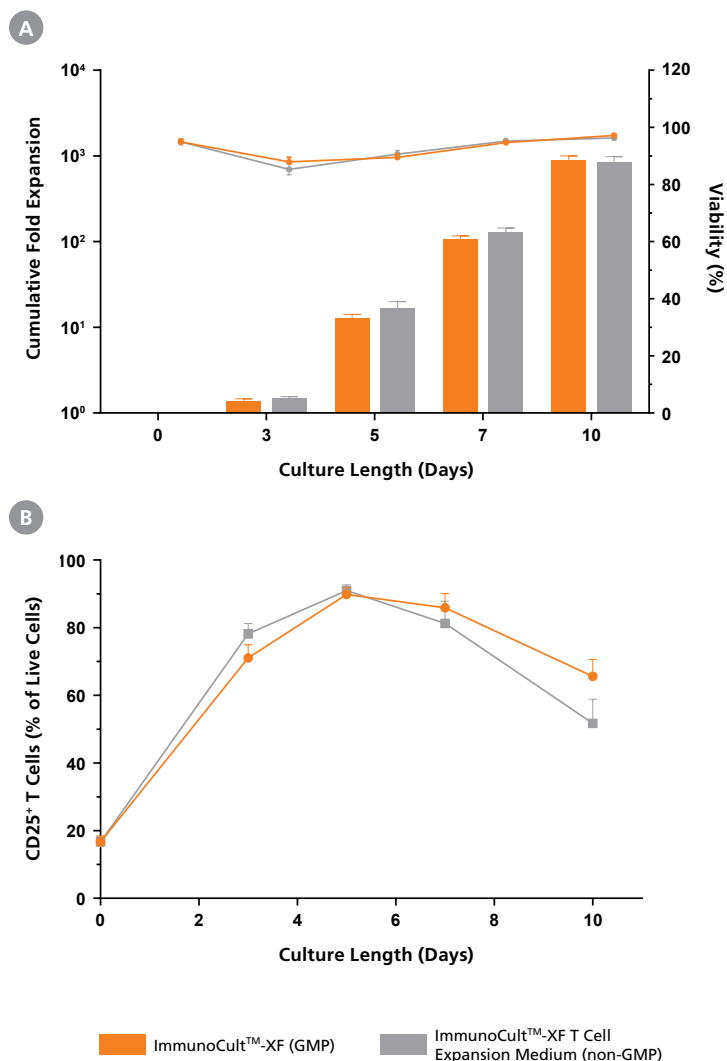


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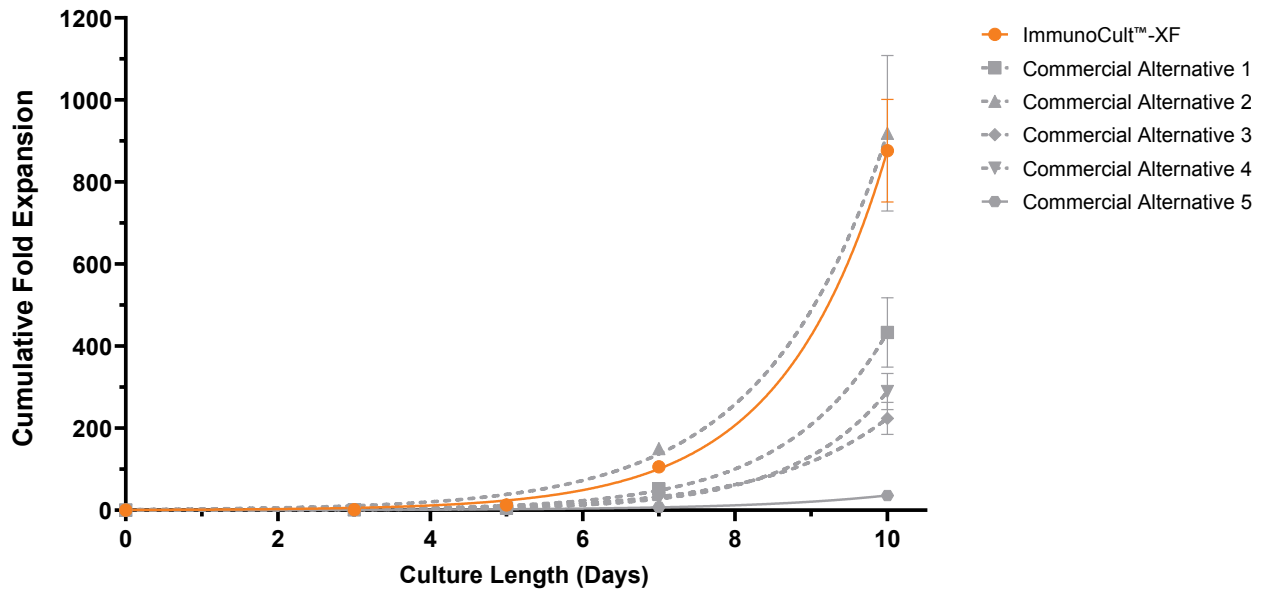


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**Figure 1. ImmunoCult™-XF Supports Equivalent Expansion and Activation of T Cells When Compared to Non-GMP Medium**

(A) T cells cultured in GMP-manufactured ImmunoCult™-XF expand robustly and maintain the same high viability as shown for the original, non-GMP ImmunoCult™-XF T Cell Expansion Medium. ImmunoCult™-XF supports prompt expansion of cultured T cells with the generation of total fold expansion values of approximately 800-fold and cell viability greater than 85%, after 10 days of culture. (B) GMP-manufactured ImmunoCult™-XF supported robust T cell activation, similar to the non-GMP version, as demonstrated by CD25<sup>+</sup> cell surface expression. Kinetic analysis revealed prompt CD25<sup>+</sup> up-regulation by Day 3, peaking at Day 5 and from Days 7 - 10.



**Figure 2. ImmunoCult™-XF Performs As Well As Or Better Than Commercial Alternatives**

ImmunoCult™-XF was compared to 5 leading T cell media alternatives. Analysis of T cell growth kinetics demonstrated that ImmunoCult™-XF supported equivalent or faster T cell expansion compared to commercial alternatives. It should be noted that ImmunoCult™-XF is a complete medium that does not require the addition of serum, whereas the other commercial alternatives tested required supplementation.

### Why Use ImmunoCult™-XF for Cell Therapy Applications?

- ROBUST.** Expand T cells for use in clinical applications with a medium produced under relevant cGMPs
- REPRODUCIBLE.** Reduce variability by expanding T cells in serum- and xeno-free culture conditions
- EFFICIENT.** Achieve robust T cell expansion with high viability
- FUNCTIONAL.** Obtain T cells able to produce cytokines upon restimulation
- STREAMLINED.** Activate T cells bead-free by combining with ImmunoCult™ Human T Cell Activators

### Taking Your Research to the Clinic?

STEMCELL's Services for Cell Therapy program has a team of experts who can help support your regulatory filing by providing custom solutions such as quality documentation, additional product testing, and customized product manufacturing. To learn more about how we can support your preclinical and clinical research needs, visit us at [www.stemcell.com/cell-therapy-services](http://www.stemcell.com/cell-therapy-services)



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