

4Cell[®] Nutri-T Media

Xeno-Free, Serum-Free
Media for the Cultivation
of Lymphocytes Offering
Superior Performance
and Flexibility



Product Information

4Cell[®] Nutri-T Media: A Solution Without Serum

Cell-based immunotherapy is at the forefront of advanced cancer treatments. The most common cell-based immunotherapies to date are T cell therapies (mainly CAR-Ts and TILs). Cells being used for immunotherapy are commonly cultured in media supplemented with human serum. The use of serum introduces further variability into the process due to donor-to-donor variation, which leads to inconsistent cell growth and characteristics. Eliminating serum simplifies the process, lowers the regulatory risk, and reduces the associated logistical burden. Nutri-T media eliminate this need for serum addition by substituting serum's critical components with specific proteins, lipids, and other small molecules.

Product Snapshot

- Xeno-free
- Serum-free. No need to add serum
- cGMP guidelines and ISO13408 Regulatory Compliance
- Developed using actual cancer patient cells
- Excellent performance for PBMCs, TILs, CAR-T
- Excellent performance at low initial seeding densities

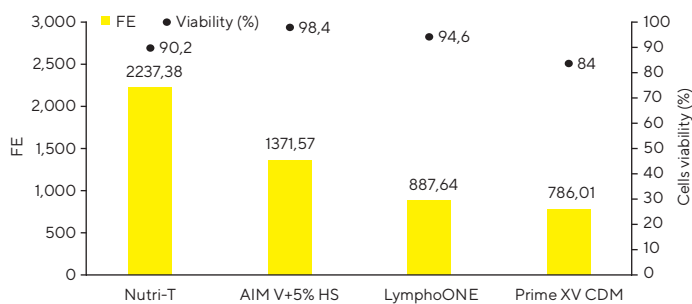
4Cell® Nutri-T Media:

Advancing Research and Clinical Applications

4Cell® Nutri-T is the ideal medium to use in the development and scale-up of cell-based therapeutic applications in the field of immune-oncology. Nutri-T is a xeno-free formulation demonstrating consistent and accurate results for both healthy donors (Fig. 1) and patient-derived (Fig. 2) T cells, without serum supplementation.

Nutri-T is Superior to Competitor Media in Expansion of Healthy PBMCs (With and Without CAR-T Transduction) at Multiple Seeding Densities

A Healthy PBMCs (CAR-T) Expansion (0.5M cells/well, 24 w/p)



B Healthy PBMCs (CAR-T) Expansion (0.2M cells/well, 24 w/p)

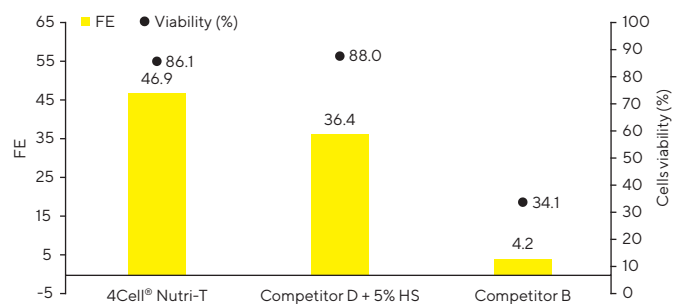


Figure 1: (A) 0.5M healthy donor PBMCs were seeded in 24 w/p (2 mL media/well). Cells were activated with TransAct 1:100 and 600 IU/mL IL-2. Cells were split and media renewed every 2-3 days. Fold expansion (FE) and cell viability were measured at Day 11.

(B) 0.2M PBMCs from healthy donors were seeded in 24 w/p (2 mL media/well). Cells were activated with TransAct 1:100 and 600 IU/mL IL-2. 24 hr. After seeding cells were transduced with a lentiviral vector expressing an EGFR-CAR-T. Cells were split and media renewed every 2-3 days. FE and cell viability were measured at Day 11.



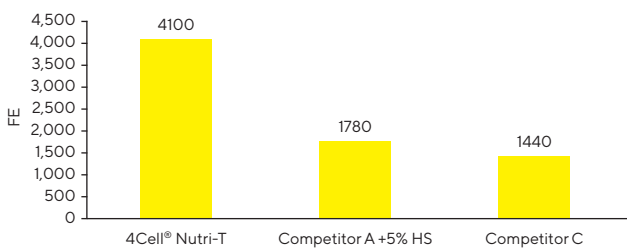
4Cell® Nutri-T Media: Excellent Performance With Patient-Derived Cancer T Cells

Most of the currently available xeno-free media for T cells have been validated only on cells isolated from healthy donor derived PBMCs, or healthy CAR-T manipulated cells. 4Cell® Nutri-T was developed in collaboration with the highly accredited Ella Lemelbaum Institute for Immuno-Oncology at Sheba Medical Center, Israel. The Sheba partnership

allows Sartorius access to clinical, patient-derived TILs and T cells. This unique development platform resulted in 4Cell® Nutri-T exhibiting excellent performance even with clinical condition cells at low initial seeding concentrations (Fig. 2).

Nutri-T is Superior to Competitor Media in Expansion of Patient-Derived Cancer Cells for Both TILs and CAR-T Processes

A Patient-Derived TILs Expansion (0.015M cells/well, 24 w/p)



B Patient-Derived PBMCs (CAR-T) Expansion (1M cells/well, 24 w/p)

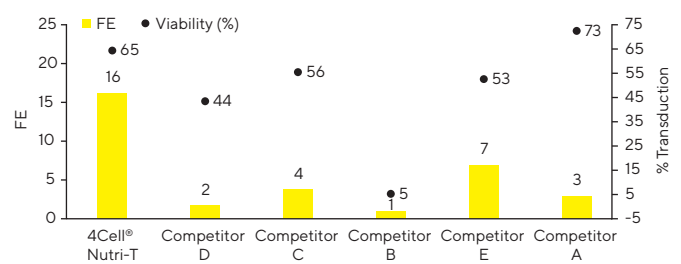


Figure 2: (A) TILs were isolated from a melanoma patient. 15,000 cells were seeded in a 24 w/p (2 mL/well) with PBMCs (1:100). Cells were activated with IL-2 (3,000 IU/mL) and OKT-3 (50 ng/mL). 2 mL and 4 mL of fresh medium + IL2 were added at Days 5 and 7 respectively (total volume of 8 mL). Fold expansion was measured at 14 days. Inherent variations among primary T lymphocyte donor populations may result in varying outcomes.

(B) PBMCs were separated from peripheral blood of a lymphoma patient. Tested mediums were supplemented with 50 ng/mL OKT3 and 300 IU/mL IL2. At Day 2 post seeding, 2–3M cells for the G-Rex24 were transduced with a CD19-CAR lentiviral vector in 6w/p pre-coated with RTN. Post transduction the cells were collected and reseeded. At day 4, 4 mL fresh medium +IL2 were added and at Day 6, 50% medium was replaced with fresh medium + IL2. At Day 9 transduction efficiency was evaluated and at Day 10 Fold expansion was measured.

4Cell® Nutri-T Media: Sartorius is Your Reliable Supply Partner

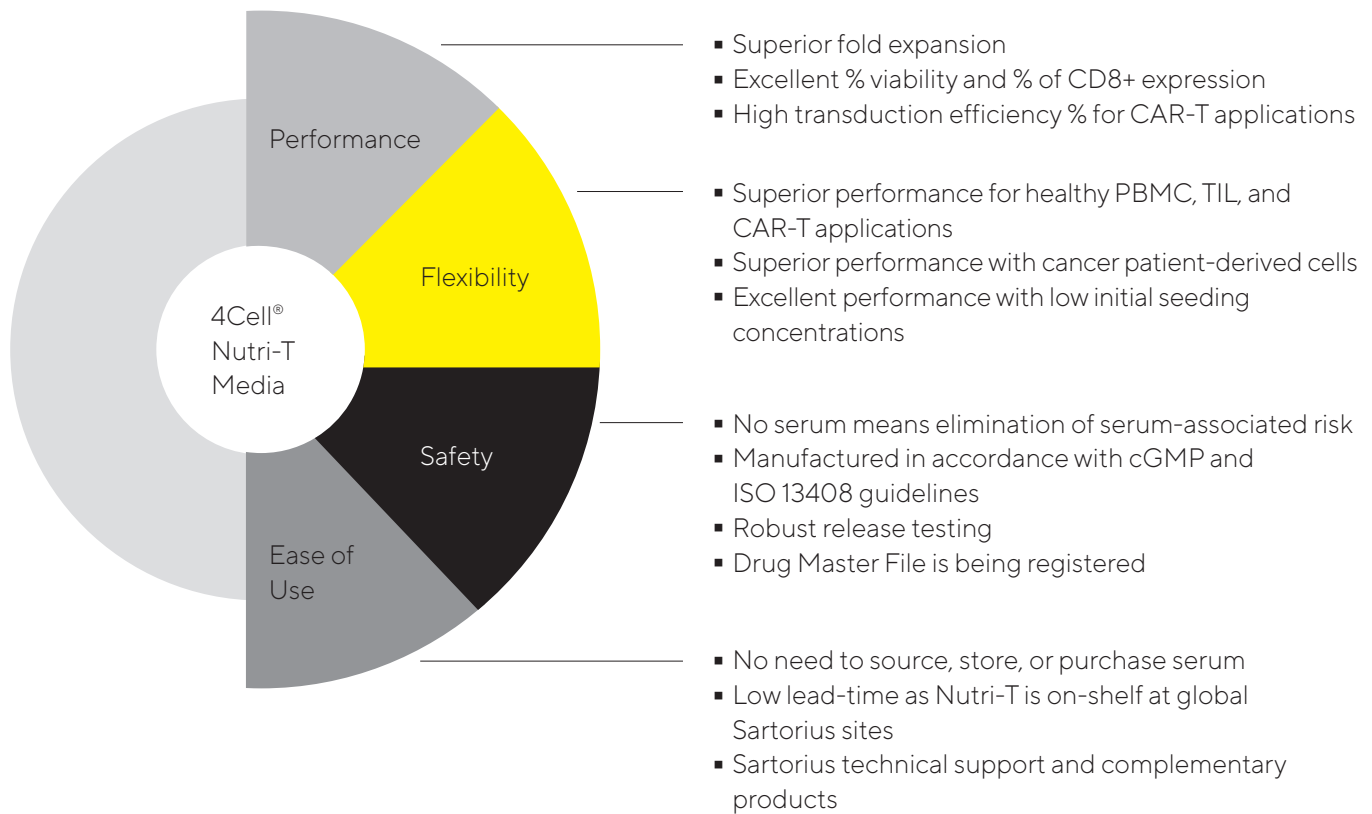
When working with a patients' cells, the materials used and the time from cell isolation to patient administration with the final product are critical. You cannot afford to waste time as a result of production or shipment delays.

Sartorius is your trusted partner. With multiple distribution sites and a robust supply chain, we can guarantee your media is on time, lot-to-lot consistent, and of the highest quality.

Ordering Information

Product Description	Size & Package	Storage	Cat. No.
4Cell® Nutri-T GMP	1 L Bottle (Liquid)	2–8 °C	05-F3F2111-1K
4Cell® Nutri-T GMP w/o Phenol Red	1 L Bottle (Liquid)	2–8 °C	05-F3F2101-1K

Your Benefits at a Glance



Germany


Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49 551 308 0

USA

Sartorius Stedim North America Inc.
565 Johnson Avenue
Bohemia, NY 11716
Toll-Free +1 800 368 7178

Israel

Biological Industries Israel Beit Haemek Ltd.
Kibbutz Beit Haemek 2511500
Phone +972 4 9960595

 For further contacts, visit
www.sartorius.com