PRODUCT DATA SHEET

iPSC-Derived Human T Cell Kit

(African-American, Male Line)

Catalog No. ASE-9720-1 RUO • Rev. 1 I August 2026

Product Overview

Applied StemCell has developed an efficient integration-free, small molecule-based method to differentiate high-quality T cells from human iPSCs. The differentiated T cells recapitulate key phenotypic and functional characteristics of primary and in vivo T cells. ASE-9720-1 contains cryopreserved T cells differentiated from the integration-free control human iPSC line ASE-9211, reprogrammed from dermal fibroblasts of an African-American male donor. These cells express the T cell biomarkers CD4 and CD8 (Figure 1). Optimized T Cell Basal Media (ASE-9720MM) and T Cell Supplement (ASE-9720MM-A) support robust maintenance and functionality in culture. The T cells can also be used as effector cells for cytotoxicity assays.

Key Features & Benefits

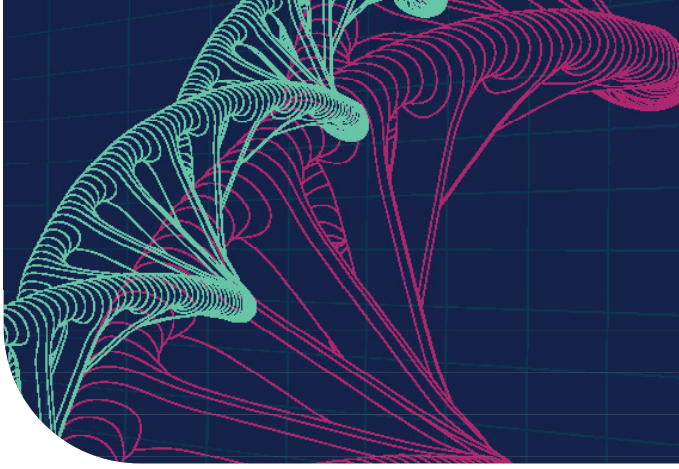
Feature	Benefit
Ready-to-use format	Reduces differentiation setup time and supports faster experimental starts.
Defined donor background	Enables traceable use in disease modeling and comparative studies.
Marker-confirmed phenotype	Documents T cell identity through CD4 and CD8 expression.
Flexible downstream use	On request, T cells can be purified by FACS or MACS (single- or double-positive) or further differentiated to ≥80% mature CD8+ T cells.
Matched culture medium	Supports recovery, maintenance, and reproducible cell performance.

Applications

- T cell biology and phenotype studies
- Control for patient-derived or genome-edited iPSC-derived T cells
- Effector cells for cytotoxicity assays
- Drug discovery and screening

Product Specifications

Product Type	RUO
Cell Type	Human iPSC-derived T cells
Parental Line / Background	Control human iPSC line ASE-9211 (Normal, Male, African American, Neonate); dermal fibroblasts; episomal reprogramming; feeder-free culture.
Format	Cryopreserved cell kit
Quantity	≥1 × 10^6 cells/vial
Storage	Ships on dry ice. Cells: liquid nitrogen; culture media and supplement: −20°C.
Shelf Life	12 months for cells and media components when stored as directed. See lot-specific CoA / component labeling.



Quality Control Summary

Each lot is released against the following quality criteria. Lot-specific results are provided on the accompanying Certificate of Analysis (CoA).

- Post-thaw viability, recovery, and growth
- Cell purity following recovery from cryopreservation
- Phenotype / identity markers: CD4 and CD8
- Mycoplasma and pathogen testing

Supporting Data

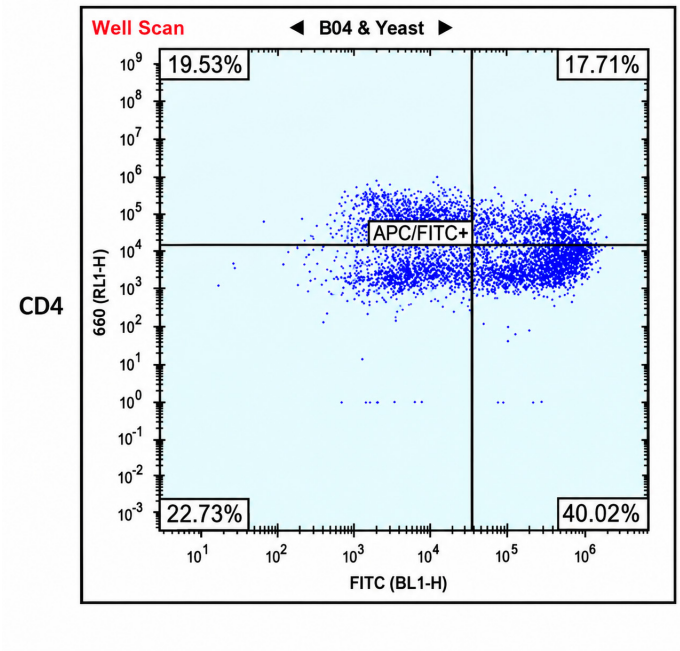
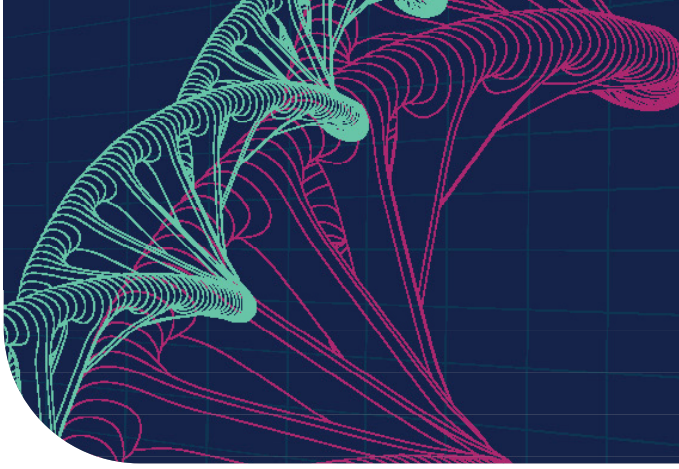


Figure 1. Flow cytometry analysis of ASE-9720-1 iPSC-derived T cells for T cell biomarkers. T cells differentiated from the Applied StemCell control iPSC line ASE-9211 were stained with the T cell markers CD4 and CD8 (premature T cells CD4+/CD8+ = 17.71%; mature T cells CD8+ = 40.02%). Upon request, the T cells can be purified by FACS or MACS (single-positive or double-positive) and further differentiated to obtain a higher percentage (≥80%) of mature CD8+ T cells.



Ordering Information

Catalog No.	ASE-9720-1
Description	iPSC-Derived Human T Cell Kit; African-American Male Line
Format	Kit
Pack Size	1 each

Kit Components

Catalog No.	ASE-9720-C
Description	iPSC-Derived T Cells (CD4+, CD8+); African-American Male Line
Format	Cells
Pack Size	≥1 × 10^6 cells/vial

Catalog No.	ASE-9720MM
Description	T Cell Basal Media
Format	Media
Quantity	100 mL

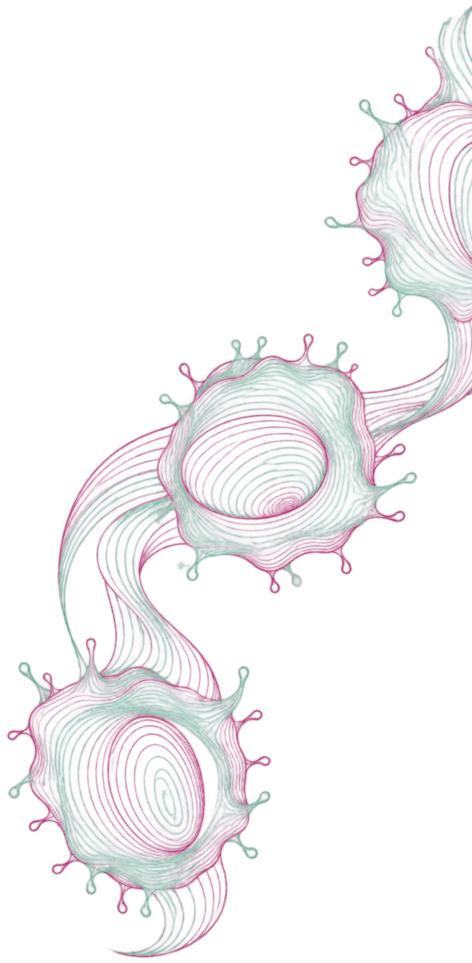
Catalog No.	ASE-9720MM-A
Description	T Cell Supplement
Format	Supplement
Quantity	1 mL

Product Use & Storage

For research use only. Store each component immediately upon receipt under the conditions shown above. Shelf life is contingent on proper storage; refer to component labeling and the lot-specific CoA.

Related Products

- ASE-9211 – Control human iPSC line (African-American male)
- ASE-9285-1 – iPSC-Derived Human NK Cell Kit
- Contact Applied StemCell for compatible media and related cell models.



Applied StemCell

Let's advance your research.

Applied StemCell powers your basic, autologous, and allogeneic research and development with 15+ years of iPSC experience, proven GMP know-how, and proprietary TARGATT™ gene editing technology, which takes over where CRISPR/Cas9 ends.

Contact & Ordering

appliedstemcell.com

info@appliedstemcell.com

+1 866.497.4180

Ready to accelerate your genome engineering project?

Scan the QR code or visit our website to explore product details, access technical resources, discover related TARGATT™ solutions, and request a consultation with our scientific team.

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© 2026 Applied StemCell, Inc. Inserted constructs must be shown to be expressed in iPSCs or the differentiated cell type.