



## NIH AIDS Reagent Program

20301 Century Boulevard  
Building 6, Suite 200  
Germantown, MD 20874  
USA

Phone: 240 686 4740  
Fax: 301 515 4015  
aidsreagent.org

### DATA SHEET

<b>Reagent:</b>	A3.01 Cells
<b>Catalog Number:</b>	166
<b>Lot Number:</b>	150225
<b>Release Category:</b>	C
<b>Provided:</b>	1 ml of cells at $5.3 \times 10^6$ cells/ml). Viability is 71%.
<b>Cell Type:</b>	HAT-sensitive derivative of CEM, a human T-cell line derived from the peripheral blood buffy coat of a four-year-old Caucasian female with acute lymphoblastic leukemia.
<b>Propagation Medium:</b>	RPMI 1640, 90%; fetal bovine serum, 10%.
<b>Freeze Medium:</b>	Propagation medium, 90%; DMSO, 10%.
<b>Growth Characteristics:</b>	<p>When thawing, gently wash out the DMSO with 37°C medium and seed the initial culture at <math>1 \times 10^6</math> cells/mL. Cells quickly recover viability over 3 days.</p> <p>Passage the cells every three days to give a concentration of <math>1 \times 10^6</math> cells/ml. Cells grow in single cell suspension. Doubling time is 24 hours. A3.01 has also been grown successfully in OPTI-MEM medium containing 2.5% fetal bovine serum, 2.0 mM L-glutamine, 100 U/ml penicillin and 100 µg/ml streptomycin.</p>
<b>Morphology:</b>	Mature lymphocyte
<b>Sterility:</b>	Negative for bacteria, mycoplasma, and fungi.
<b>Description:</b>	A3.01 cells are a HAT-sensitive derivative of CEM cells that support HIV-1 replication.

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ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

**Special Characteristics:** A3.01 was selected by growth in hypoxanthine and aminopterin-containing medium. It is suitable for human T-lymphocyte fusions. Cells are Leu-3+, Leu-8+, Leu-1+, *tac*-, transferrin receptor+, sensitive to infection with LAV, and susceptible to cytopathic effects when infected.

**Recommended Storage:** Liquid nitrogen.

**Contributor:** Dr. Thomas Folks.

**References:** Buttke TM, Folks TM. Complete replacement of membrane cholesterol with 4,4', 14-trimethyl sterols in a human T cell line defective in lanosterol demethylation. *J Biol Chem* **265**:8819-8826, 1992.

Folks T, Benn S, Rabson A, Theodore T, Hoggan MD, Martin M, Lightfoote M, Sell K. Characterization of a continuous T-cell line susceptible to the cytopathic effects of the acquired immunodeficiency syndrome (AIDS)-associated retrovirus. *Proc Natl Acad Sci USA* **82**:4539-4543, 1985.

**NOTE:** Acknowledgment for publications should read "The following reagent was obtained from the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: A3.01 cells (cat# 166) from Dr. Thomas Folks." Also include the references cited above in any publications.

**Scientists at for-profit institutions or who intend commercial use of this reagent must contact the NIH Office of Technology Transfer, Email: [NIAIDAIDSReagent@niaid.nih.gov](mailto:NIAIDAIDSReagent@niaid.nih.gov), before the reagent can be released. Please specify the name and a description of the intended use of the reagent.**

**Last Updated** March 19, 2018

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