



## NIH AIDS Reagent Program

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### DATA SHEET

<b>Reagent:</b>	ACH-2 Cells
<b>Catalog Number:</b>	349
<b>Lot Number:</b>	110229
<b>Release Category:</b>	C
<b>Provided:</b>	5.0 x 10 <sup>6</sup> cells/ml (1 mL provided). Viability is 91%.
<b>Cell Type:</b>	Subclone A3.01, which is derived from CEM, a human T cell line originally isolated from a four-year-old Caucasian female with acute lymphoblastic leukemia.
<b>Propagation Medium:</b>	RPMI 1640 supplemented with 10 mM HEPES, 2 mM L-glutamine, 90%; heat inactivated fetal bovine serum, 10%.
<b>Freeze Medium:</b>	RPMI 1640, 82.5%; heat inactivated fetal bovine serum, 10%; DMSO, 7.5%.
<b>Growth Characteristics:</b>	Cells grow in single cell suspension with some visible clumping. Passage the cells every three days to give a concentration of 1 x 10 <sup>6</sup> cells/ml. Doubling time is 24 hours. ACH-2 cells require RPMI 1640 with supplements for regular growth but they can also be grown in OPTI-MEM containing 2.5% fetal bovine serum, 2.0 mM L-glutamine, 100 U/ml penicillin, 100 µg/ml streptomycin and 0.5 µM β-mercaptoethanol.
<b>Sterility:</b>	Negative for mycoplasma, bacteria and fungi.
<b>Description:</b>	HIV-1 latent T cell clone with one integrated proviral copy.
<b>Special Characteristics:</b>	Cells are CD4-, CD5+, transferrin receptor+, Leu-1+, HIV-1+. Parent A3.01 cells were infected with LAV and cloned by limiting dilution. ACH-2 is a clone that survived infection and constantly produces low levels of supernatant RT and p24. Can be induced with phorbol myristate acetate or TNF-α to secrete high levels of infectious HIV-1.

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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.

**Recommended Storage:** Liquid nitrogen

**Contributor:** Dr. Thomas Folks.

**References:** Clouse KA, Powell D, Washington I, Poli G, Strebel K, Farrar W, Barstad P, Kovacs J, Fauci AS, Folks TM. Monokine regulation of human immunodeficiency virus-1 expression in a chronically infected human T cell clone. *J Immunol* **142**:431-438, 1989.

Folks TM, Clouse KA, Justement J, Rabson A, Duh E, Kehrl JH, Fauci AS. Tumor necrosis factor a induces expression of human immunodeficiency virus in a chronically infected T-cell clone. *Proc Natl Acad Sci USA* **86**:2365-2368, 1989.

**NOTE:** Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: ACH-2 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 Dr. Sally Hu at the NIH Office of Technology Transfer, Email: [hus@mail.nih.gov](mailto:hus@mail.nih.gov), Phone: 301-435-5606, before the reagent can be released. Please specify the name and a description of the intended use of the reagent.**

**Last Updated** February 27, 2015

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