



## NIH AIDS Reagent Program

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### DATA SHEET

<b>Reagent:</b>	HL3T1 Cells
<b>Catalog Number:</b>	1115
<b>Lot Number:</b>	1
<b>Release Category:</b>	C
<b>Provided:</b>	4 x 10 <sup>6</sup> cells/vial.
<b>Propagation Medium:</b>	DMEM (4500 mg/l glucose), 90%; fetal bovine serum, 10%.
<b>Freeze Medium:</b>	DMEM, 70%; fetal bovine serum, 20%; DMSO, 10%.
<b>Growth Characteristics:</b>	Split cells twice weekly 1:10 just upon reaching confluency (approximately 2.5 x 10 <sup>7</sup> cells/T75 flask). The culture flask should be changed every two weeks. The cells are considered to be unhealthy when they become spindle-shaped. HL3T1 cells are stable and do not need to be maintained in selection medium; if growth in selection medium is desired, propagation medium containing 500 µg/ml G418 should be used.
<b>Sterility:</b>	Negative for bacteria and mycoplasma.
<b>Description:</b>	The HeLa derivative HL3T1 is a sensitive indicator cell line for the HIV-1 Tat transactivator protein.
<b>Special Characteristics:</b>	HL3T1 cells contain stably integrated, silent copies of the HIV-1 LTR promoter linked to the CAT gene. They produce chloramphenicol acetyl transferase (CAT) enzyme upon introduction of active Tat. This cell line was generated by cotransfection of pL3CATt and the plasmid pSV2neo and selected in geneticin (G418) <sup>1,2</sup> . Clone HL3T1 was selected based on high activation by Tat protein. In addition, CAT expression by HL3T1 is activated by Herpes virus infection <sup>2,3</sup> . Cell lines activated only by Tat and not Herpes are available from the contributor on request. Morphology is epithelial-like. Contains LTR sequences to +80 in the R region. Contains the entire U3 region, but lacks U5 sequences.

[Protocol: Cell Fusion and Transfection of HL3T1 and HeLa Tat Cell Lines](#)

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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. Barbara K. Felber and Dr. George N. Pavlakis.

**References:**

<sup>1</sup>Wright CM, Felber BK, Paskalis H, Pavlakis GN. Expression and characterization of the trans-activator of HTLV-III/LAV virus. *Science* **234**:988-992, 1986.

<sup>2</sup>Felber BK, Pavlakis G.. A quantitative bioassay for HIV-1 based on trans-activation. *Science* **239**:184-187, 1988.

<sup>3</sup>Pavlakis GN, Felber BK, Wright CM. A fusion assay for the detection of HIV infected cells. In D. Bolognesi (ed.) *Human retroviruses, cancer and AIDS: approaches to prevention and therapy*. Alan R. Liss, Inc., New York, pp. 439-445, 1988.

**NOTE:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HL3T1 from Dr. Barbara K. Felber and Dr. George N. Pavlakis." Also include the references cited above in any publications.

**An NCI patent application has been filed on the use of the cell line HL3T1. Corporate requests should be directed in writing to: B.K. Felber or G.N. Pavlakis, National Cancer Institute, FCRDC, ABL-Basic Research Program, P.O. Box B/Building 539, Room 121, Frederick, Maryland 21702-1201. Phone: (301) 846-1474, FAX (301) 846-5991.**

**Last Updated**

July 02, 2018

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