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

Reagent:	☥ HIV-1 LAV infected 8E5 Cells
Catalog Number:	95
Lot Number:	100217
Release Category:	C
Provided:	3 x 10^6 cells/ml. Viability is 95%.
Cell Type:	Subclone of LAV-infected A3.01, a $CD4^+$ CEM-derived human T-cell line.
Propagation Medium:	RPMI 1640, 90%; fetal bovine serum, 10%.
Freeze Medium:	RPMI 1640, 82.5%; fetal bovine serum, 10%; and DMSO, 7.5%.
Growth Characteristics:	When thawing, slowly dilute the cells with 37°C medium dropwise. Begin the culture at 2 x 10^6 cells/ml, splitting the cells 24 hours later 1 x 10^6 cells/ml. Passage the cells every three days thereafter to give a concentration of 1 x 10^6 cells/ml. Cells grow in single cell suspension with some clumping. 8E5/LAV has also been successfully 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 ß-mercaptoethanol.
Sterility:	Negative for bacteria, mycoplasma, and fungi.
Special Characteristics:	Similar in morphology to other T-cell lines. A3.01 parent cells were infected with LAV and selected by a series of 3 exposures to IUdR. Each 8E5/LAV subclone contains a single integrated copy of proviral DNA (no unintegrated DNA) directing synthesis of defective virus particles. Cells are $CD4^-$ and secrete high levels of p24, but do not produce RT. **Please note, publications have shown that multiple passages of this cell line, particularly at high split ratios, can result in a loss of proviral DNA. See the second and third articles in the reference section for more information.**

Recommended Storage:	Keep the reagent in liquid nitrogen.
Contributor:	Dr. Thomas Folks.
References:	Folks, T. M., Powell, D., Lightfoote, M., Koenig, S., Fauci, A. S., Benn, S., . . . et al. (1986). Biological and biochemical characterization of a cloned Leu-3- cell surviving infection with the acquired immune deficiency syndrome retrovirus. J Exp Med, 164(1), 280-290. PUBMED Busby, E., Whale, A. S., Ferns, R. B., Grant, P. R., Morley, G., Campbell, J., . . . Garson, J. A. (2017). Instability of 8E5 calibration standard revealed by digital PCR risks inaccurate quantification of HIV DNA in clinical samples by qPCR. Sci Rep, 7(1), 1209. doi:10.1038/s41598-017-01221-5 PUBMED Wilburn, K. M., Mwandumba, H. C., Jambo, K. C., Boliar, S., Solouki, S., Russell, D. G., & Gludish, D. W. (2016). Heterogeneous loss of HIV transcription and proviral DNA from 8E5/LAV lymphoblastic leukemia cells revealed by RNA FISH:FLOW analyses. Retrovirology, 13(1), 55. doi:10.1186/s12977-016-0289-2 PUBMED
NOTE:	Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 LAV infected 8E5 Cells from Dr. Thomas Folks." Also include the reference 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, before the reagent can be released.** **Please specify the name and a description of the intended use of the reagent.**
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