



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	HL2/3 Cells
Catalog Number:	1294
Lot Number:	011379
Release Category:	C
Provided:	1 ml of cells. 2×10^6 cells/ml. Viability is 97%.
Propagation Medium:	DMEM (4500 mg/L glucose), 90%; fetal bovine serum, 10%.
Freeze Medium:	DMEM, 70%; fetal bovine serum, 20%; DMSO, 10%.
Growth Characteristics:	Split twice weekly 1:10. HL2/3 cells are stable and do not need to be maintained in selection medium. If growth in selection medium is desired, propagation medium containing 500 $\mu\text{g/ml}$ G418 should be used. The culture flask should be changed every two weeks. Avoid repeated passages of this cell line in culture because a gradual decrease in Env production occurs after the 15th passage. The enclosed vials are passage #7.
Morphology:	Epithelial-like.
Sterility:	Negative for bacteria, fungi and mycoplasma.
Description:	HL2/3 ¹ contains stably integrated copies of the HIV-1 molecular clone HXB2/3gpt.
Special Characteristics:	This cell line was generated by cotransfection of HeLa cells with the plasmids pHXB2/3gpt, pSV2neo and selected in geneticin (G418). Clone HL2/3 was selected on the basis of high-level production of Gag, Env, Tat, Rev, and Nef proteins. HL2/3 does not produce detectable viral RT or detectable amounts of mature virions. Cocultivation with the CD-4-producing cell line HLCD4-CAT (catalog #1299) results in efficient cell fusion within 6-12 hours ¹ . Upon fusion, Tat produced by the HL2/3 cells activates CAT gene expression in HLCD4-CAT. Fusion efficiency can be quantitated by assaying for CAT gene activation. Fusion inhibitors decrease CAT enzyme levels in a dose-dependent manner. HL2/3 cells

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can be used for the production of Env and other viral proteins in the absence of infectious virus.

Recommended Storage:

Liquid nitrogen

Contributor:

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

References:

¹Ciminale V, Felber BK, Campbell M, Pavlakis GN. A bioassay for HIV-1 based on Env-CD4 interaction. *AIDS Res Hum Retroviruses* **6**:1281-1287, 1990.

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HL2/3 Cells from Dr. Barbara K. Felber and Dr. George N. Pavlakis." Also include the reference cited above in any publications.

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

April 17, 2019

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