



NIH AIDS Reagent Program

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DATA SHEET

Reagent: RevCEM-D4 Cells

Catalog Number: 13437

Lot Number: 200583

Release Category: C

Provided: 600 µL of cells
Post thaw cell count = 3.315×10^6 cells/vial
Post thaw cell viability = 59%
Cell viability increased to 87% after 7 days in culture.

Cell Type: Human CD4+ lymphoblastoid cell line.

Propagation Medium: Donor Provided Propagation Media: 90% RPMI, 10% Heat-inactivated Fetal Calf Serum. NEAA (1:100 of 10mM) Na-pyruvate (1:100 of 100mM) HEPES (1:100 of 1M) L-glutamine (1:50 of 200mM)
Current Propagation Media: RPMI 1640, 90%; fetal bovine serum, 10%; Glutamax, 1%

Freeze Medium: Gibco Recovery™ Cell Culture Freezing Medium

Growth Characteristics: Thaw into 4ml of media and plate in one well of a 6-well plate. Passage every 48hr from 1-1.2e6 cells/ml to 3e5 cells/ml, moderate growth speed. Cells grow best in up to 6ml media per well of a 6-well plate.

Morphology: Semi-circular suspension cell line. May be slightly elongated with one tapering end.

Sterility: Negative for mycoplasma, bacteria and fungi.

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.

Description: RevCEM-D4 is a highly sensitive indicator cell line for HIV infection expressing high levels of both CCR5 and CXCR4.

Special Characteristics: RevCEM-E7 clone (cat# 13435) was infected with the Human CCR5 Expression Vector (pBABE.CCR5) (cat# 3331) which stably expressed CCR5 under the LTR promoter, and sub-cloned by limiting dilution. Clones derived from single cells were expanded into duplicate 96-well plates, one optical and one standard tissue culture for continued growth. The optical plate was infected with the HIV-1 NL4-3 AD8 Infectious Molecular Clone (pNL(AD8)) (cat# 11346) and wells were scanned by microscopy to find clones which maintained similar GFP expression to the parental RevCEM-E7 clone. This clone was then expanded from the uninfected replicate plates and frozen.

Recommended Storage: Keep the reagent in liquid nitrogen.

Contributor: Dr. Alex Sigal

References: Jackson, L., J. Hunter, S. Cele, I. M. Ferreira, A. C. Young, F. Karim, R. Madansein, K. J. Dullabh, C. Y. Chen, N. J. Buckels, Y. Ganga, K. Khan, M. Boulle, G. Lustig, R. A. Neher and A. Sigal. (2018). Incomplete inhibition of HIV infection results in more HIV infected lymph node cells by reducing cell death. *Elife*, 7. doi:10.7554/eLife.30134 [PUBMED](#)

Wu, Y., Beddall, M. H. and Marsh, J. W. (2007). Rev-dependent indicator T cell line. *Curr HIV Res*, 5(4), 394-402. doi:10.2174/157016207781024018 [PUBMED](#)

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: RevCEM-D4 Cells from Dr. Alex Sigal (cat# 13437)." Also include the references cited above in any publications.

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