



NIH AIDS Reagent Program

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DATA SHEET

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| Reagent: | HLM1 Cells |
| Catalog Number: | 2090 |
| Lot Number: | 3/3/94 |
| Release Category: | C |
| Provided: | 6 x 10 ⁶ cells/vial. |
| Cell Type: | HeLa CD4+ cells (Catalog #154 from Dr. Richard Axel), were transduced with the <i>tat</i> -defective mutant pM <i>tat</i> - (Catalog #2085), which contains a termination codon (TGA) in place of the methionine initiator codon (ATG) in the <i>tat</i> gene. The HIV proviral DNA was derived from pHXB2gpt, an infectious molecular clone of HIV-1 IIIB (Catalog #398, from Dr. R. Gallo). |
| Propagation Medium: | MEM, 95%; horse serum, 5%; 10 µg/ml gentamicin. These cells can be adapted for growth in richer media and in fetal bovine serum; however, maintaining them in MEM with 5% horse serum is less likely to cause the cells to spontaneously produce background virus. |
| Freeze Medium: | MEM, 70%; horse serum, 20%; DMSO, 10%. |
| Growth Characteristics: | These cells can be maintained in culture by adding fresh medium to the adherent cells every 3-4 days. Trypsinization is necessary only once every month or so unless the cells become over-confluent or need to be transferred to an additional flask. |
| Sterility: | Negative for bacteria, fungi, and mycoplasma. |
| Description: | HLM1 cells are CD4+ and negative for virus particle production, but can be stimulated to produce non-infectious virions. |

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.

Special Characteristics: HLM1 cells are negative for virus particle production, but can be induced to express high levels of non-infectious HIV-1 and syncytial cells after transfection or cocultivation with *tat*-expressing clones, or after stimulation with TNF- α , PMA, or sodium butyrate. A combination of UV light treatment and cocultivation with *tat*-expressing cells results in the production of infectious virus.

Contributor: Dr. Reza Sadaie.

References: Sadaie MR, Tschachler E, Valerie K, Rosenberg M, Felber BK, Pavlakis GN, Klotman ME, Wong-Staal F. Activation of *tat*-defective human immunodeficiency virus by ultraviolet light. *New Biol* **2**:479-486, 1990.

Sadaie MR, Hager GL. Induction of developmentally programmed cell death and activation of HIV by sodium butyrate. *Virology* **202**:513-518, 1994.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HLM1 Cells from Dr. Reza Sadaie." Also include the reference cited above in any publications.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact FDA Invention Licensing at the following email address: FDAAInventionLicensing@fda.hhs.gov, before the reagent can be released.

Last Updated September 16, 2019

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