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:	OM-10.1 Cells
Catalog Number:	1319
Lot Number:	070515
Release Category:	C
Provided:	1.4 x 10^7 cells/vial, viability=93%
Propagation Medium:	RPMI 1640 supplemented with 2.0 mM L-glutamine, 100 U/ml penicillin, 100 µg/ml streptomycin, 90%; heat-inactivated fetal bovine serum, 10%.
Freeze Medium:	Propagation medium, 92.5%; DMSO, 7.5%.
Growth Characteristics:	Thaw these cells rapidly and immediately dilute at least 1:10 in propagation medium warmed to 37°C. Seed the initial culture at 0.5 x 10^6 cells/ml, then add medium to obtain a concentration of 0.2 x 10^6 cells/ml after 24 hours. Passage the cells every 72 hours thereafter, splitting them 1:10 to maintain log phase growth. These cells grow as a single cell suspension. Doubling time is 24 hours.
Sterility:	Negative for bacteria, fungi, and mycoplasma.
Description:	OM-10.1 was cloned from HL-60 promyelocyte cells that survived an acute HIV-1 infection. These cells express surface myeloid-specific antigens characteristic of parental HL-60 cells and differentiate in response to established agents. Morphology is large circular cells with "spiked" cytoplasmic membrane. No syncytia are seen in these infected cells, although large multi-nucleated cells are sometimes observed in uninfected HL-60 cultures.
Special Characteristics:	Each cell contains a single integrated provirus. OM-10.1 shows minimum constitutive HIV-1 production and is $CD4^+$ under normal culture conditions. HIV-1 expression increases 30-1000-fold 24-72 hours after treatment with TNF-a and 10-20-fold 24-72 hours after treatment with phorbol esters. HIV-1 induction can be monitored by measuring RT activity or by viral antigen ELISA, or, for TNF-a-treated cells, by measuring cell-surface CD4 down-modulation. Supernatant p24 levels can increase to greater than 500 ng/ml after TNF-a treatment. Because OM-10.1 cells remain $CD4^+$ until viral activation, superinfection

TNF-a treatment. Because OM-10.1 cells remain CD4+ until viral activation, superinfection of resting cells will result in an increase in background HIV expression. This is particularly true immediately after cryorecovery and can be minimized by periodic treatment of the cells with 10 µg/ml AZT. Observe all BSL-3 practices when working with these cells.

Recommended Storage: Liquid nitrogen

Contributor: Dr. Salvatore Butera.

References:

Butera ST, et al. *J Virol* **68**:2726-2730, 1994.
Butera ST, et al. *AIDS* **7**:911-918, 1993.
Butera ST, Roberts BD, Folks TM. *J Immunol* **150**:625-634, 1993.
Butera ST, et al. *J Cell Biochem* **45**:366-373, 1991.
Butera ST, et al. *J Virol* **65**:4645-4653, 1991.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: OM-10.1 Cells from Dr. Salvatore Butera." Also include the references cited above in any publications.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact Ms. Lisa Blake-DiSpigna at email address LBlake-DiSpigna@cdc.gov and specify in the email the name of the reagent, and a description of the intended use of the reagent.

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