



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	GHOST (3) CXCR4+CCR5+ Cells
Catalog Number:	3942
Lot Number:	160061
Release Category:	C
Provided:	1 mL of cells Post thaw cell count = 7.7×10^6 cells/mL Post thaw cell viability = 93%
Cell Type:	HOS (human osteosarcoma) cells
Propagation Medium:	High glucose DMEM, 90%; fetal bovine serum, 10%; 500 μ g/mL G418; 100 μ g/mL hygromycin; pen/strep; 1 μ g/mL puromycin
Freeze Medium:	Fetal bovine serum, 90%; DMSO, 10%
Morphology:	Adherent Cell Line, Epithelial-like Cell Line
Sterility:	Negative for mycoplasma, bacteria, and fungi
Description:	Human osteosarcoma cells expressing CD4, CXCR4 and CCR5. This cell line has a tat-dependent HIV-2 LTR-GFP construct producing GFP in response to HIV infection.
Special Characteristics:	GHOST (3) parental cells are derived from HOS (human osteosarcoma) cells that were stably transduced with a MV7neo-T4 retroviral vector as well as stably cotransfected with a HIV-2 LTR-GFP construct and the CMV IE driving hygro-resistance construct. GHOST (3) CCR5+ Cells (Hi-5) were generated by transduction of the parental cells GHOST (3) (Cat# 3679) with the retroviral MLV BABE-puro vector containing the human CCR5 gene, then additionally transduced with the non-selectable MX-CCR5 retroviral vector and sorted for high CCR5 expression.

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.

GHOST (3) CXCR4+ CCR5+ Cells were generated by transduction of the GHOST (3) CCR5+ Cells (Hi-5) (Cat# 3944) with the non-selectable MX-CCR4 retroviral vector and sorted for high CXCR4 expression. These cells are HIV indicator cells, they can be used to titer virus, determine the phenotypic properties and in drug/neutralization studies. For a full listing of the available GHOST (3) HIV indicator cells, please see Table 1 below.

GHOST (3) Parent Cell Line: Progenitor cell line used to develop GHOST (3) indicator panel.

GHOST Cell Transformants: Indicator cells for HIV-1, HIV-2, or SIV infection with uncloned, primary isolates, molecular clones, or pseudotyped virus. The puromycin-resistant cells are pools rather than clones for human coreceptor expression.

Table 1: GHOST (3) HIV Indicator Cells

Protocol: Care and use of GHOST (3) HIV indicator cells

Alternate names: GHOST (3) X4/R5

Recommended Storage:

Keep the reagent in liquid nitrogen.

Contributor:

Dr. Vineet N. KewalRamani and Dr. Dan R. Littman.

References:

A. Morner, A. Bjorndal, J. Albert, V. N. Kewalramani, D. R. Littman, R. Inoue, R. Thorstensson, E. M. Fenyo and E. Bjorling. (1999). Primary human immunodeficiency virus type 2 (HIV-2) isolates, like HIV-1 isolates, frequently use CCR5 but show promiscuity in coreceptor usage. J Virol, 73(3), 2343-9. [PUBMED](#)

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: GHOST (3) CXCR4+CCR5+ Cells from Dr. Vineet N. KewalRamani and Dr. Dan R. Littman (cat# 3942)." 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 New York University Office of Industrial Liaison at the following email address: abram.goldfinger@nyumc.org, before the reagent can be released.

Last Updated

July 07, 2020

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