**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:** | GHOST (3) Bonzo+ Cells |
| **Catalog Number:** | 3687 |
| **Lot Number:** | 170009 |
| **Release Category:** | C |
| **Provided:** | 1 mL of cells<br>Post thaw cell count = 4.6 x $10^6$ cells/mL<br>Post thaw cell viability = 97% |
| **Cell Type:** | HOS (human osteosarcoma) cells |
| **Propagation Medium:** | High glucose DMEM, 90%; fetal bovine serum, 10%; 500 µg/mL G418; 100 µg/mL hygromycin; pen/strep; 1 µg/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 and Bonzo/STRL33/CXCR6. 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.<br>GHOST (3) Bonzo+ Cells were generated by transduction of the parental cells GHOST (3) (Cat# 3679) with the retroviral MLV BABE-puro vector containing the human Bonzo/STRL33 gene. 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.

This cell line was cultured in vitro and the expression of the receptor of interest was confirmed by flow cytometry. Single cells were then individually sorted and propagated, with continued monitoring of expression of key receptors. Despite these efforts, the population remains heterogeneous for expression.

Table 1: GHOST (3) HIV Indicator Cells

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

Alternate name: GHOST (3) Bonzo/STRL33 Cells

**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) Bonzo+ Cells from Dr. Vineet N. KewalRamani and Dr. Dan R. Littman (cat# 3687)." 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 06, 2020