



## 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

<b>Reagent:</b>	U87 CD4+CXCR4+ Cells
<b>Catalog Number:</b>	4036
<b>Lot Number:</b>	150047
<b>Release Category:</b>	C
<b>Provided:</b>	3.6 x 10 <sup>6</sup> cells/ml and viability is 86%.
<b>Cell Type:</b>	Human astrocytoma (glioblastoma) cells
<b>Propagation Medium:</b>	DMEM, 85%; fetal bovine serum, 15%. Supplement with 1 µg/ml puromycin, 300 µg/ml G418, glutamine, and pen/strep.
<b>Freeze Medium:</b>	Fetal bovine serum, 90%; DMSO, 10%.
<b>Growth Characteristics:</b>	Cells divide slowly; however, they should not be allowed to become over-confluent. In general, pass cells at 80% confluency and split no more than 1:10. Cells are sensitive to acidic medium. Cells can be split with 0.25% trypsin/EDTA.
<b>Sterility:</b>	Negative for bacteria, fungi, and mycoplasma.
<b>Description:</b>	U87MG cells stably transduced to express CD4 and CXCR4.
<b>Special Characteristics:</b>	<p>U87MG cells (cat# 2188) were stably transduced with the MV7neo-T4 retroviral vector and selected for G418 resistance to produce U87 CD4+ Cells (cat# 4031). Cells were subsequently transduced with pBABE-puro-CXCR4 and selected for puromycin resistance. Human CD4 and CXCR4 expression are each directed by the MV7 vector and BABE vector MLV LTR elements, respectively.</p> <p>Can be used for infections with HIV/SIV Env pseudotyped vectors (ex: HIV-luc) or with replication-competent HIV/SIV. U87 cells endogenously express the virus coreceptors GPR1 and Bonzo/STRL33, which can be used by certain SIV and HIV-2 isolates for cell entry. These cells may be contaminated with amphotropic MLV.</p>

---

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.

**Contributor:** Dr. HongKui Deng and Dr. Dan Littman.

**References:** Björndal A, Deng H, Jansson M, Fiore JR, Colognesi C, Karlsson A, Albert J, Scarlatti G, Littman DR, Fenyo EM. Coreceptor usage of primary human immunodeficiency virus type 1 isolates varies according to biological phenotype. *J Virol* **71**:7478–7487, 1997.

**NOTE:** Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: U87.CD4.CXCR4 from Dr. HongKui Deng and Dr. Dan R. Littman." Also include the reference cited above in any publications.

**Patent pending. 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](mailto:abram.goldfinger@nyumc.org)**

**Last Updated** June 22, 2017

---

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.