

**Centre for AIDS Reagents**

**Data Sheet**

**NAME:** TZM-bl/ Fc $\gamma$ RIIa

**REPOSITORY REFERENCE:** ARP5029

**SPECIES/TYPE:** Human/HeLa

**DESCRIPTION:** This is a derivative of the TZM-bl cell line, engineered by lentiviral transduction to stably express human Fc $\gamma$ RIIa on the surface. The parent TZM-bl cell line is an engineered HeLa cell clone that expresses human CD4, CCR5 and CXCR4 and contains HIV-1 Tat-regulated reporter genes for firefly luciferase and  $\beta$ -galactosidase (TZM-bl cells, Cat# 8129, NIH AIDS Research and Reference Reagent Program). TZM-bl/Fc $\gamma$ RIIa cells remain highly sensitive to infection with diverse isolates of HIV and SIV.

**PLEASE NOTE: The TZM-bl cell line is contaminated with ecotropic murine leukemia virus, MLV. For additional information please consult the following reference (Takeuchi et. al, 2008).**

**SPECIAL CHARACTERISTICS:** Expression of Fc $\gamma$ RIIa on this cell line facilitates studies of the Fc portion of antibody in mediating HIV-1 neutralization and infection-enhancement in vitro. Optimal sensitivity to infection is achieved by including DEAE-dextran in the medium. The original TZM-bl cell line was found to be infected with an ecotropic murine leukemia virus, but this has had no measurable effect on the outcome of HIV infection and neutralization assays.

**CULTURE MEDIUM:** DMEM (90%), 10% FBS, 0.025M Hepes buffer, 10  $\mu$ g/mL Gentamicin

**STORAGE:** Liquid nitrogen

**SOURCE:** Dr. David Montefiori and Dr. Gabriel Perez (Courtesy of the NIH)

**REFERENCES:** Perez LG, et al. J. Virol. 83:7397-7410, 2009

Platt EJ, et al. *J. Virol* 83: 8289-8292, 2009

Takeuchi Y, McClure MO, Pizzato M. Identification of gammaretroviruses constitutively released from cell lines used for human immunodeficiency virus research., *J Virol*. 2008 Dec;82(24):12585-8.

**ACKNOWLEDGEMENTS :**

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Please also ensure that you send us a copy of any papers resulting from work using reagents acquired through CFAR (this can be electronically or as a paper copy)