

Centre For AIDS Reagents

Data Sheet

NAME: TZM-bl

REPOSITORY REFERENCE: ARP5011

CAUTION: This cell line may be contaminated with gamma-retroviruses. The

information is contained within a manuscript in the Journal of Virology (Takeuchi Y, McClure M and Pizzato M. Identification of γ-retroviruses constitutively released from cell lines used for HIV

research. J Virol, 2008 [in press]

CELL TYPE: TZM-bl, previously designated JC53-bl (clone 13) is a HeLa cell

line. The parental cell line (JC.53) stably expresses large amounts of CD4 and CCR5. The TZM-bl cell line was generated from JC.53 cells by introducing separate integrated copies of the luciferase and β -galactosidase genes under control of the HIV-1 promoter. The TZM-bl cell line is highly sensitive to infection with diverse isolates

of HIV-1.

PROPAGATION MEDIUM: DMEM, 90%; foetal calf serum, 10%

FREEZE MEDIUM: 50% foetal calf serum, 40% DMEM, 10% DMSO

GROWTH CHARACTERISTICS: Adherent cell line. No special requirements for thawing and re-

establishing the culture. Cells grow in single cell layer. Antibiotic selection is not required to maintain stable expression of the receptor

and reporter genes.

SPECIAL CHARACTERISTICS: The TZM-bl indicator cell line enables simple and quantitative

analysis of HIV using either β -gal or luciferase as a reporter. It is maximally sensitive to HIV infection by including DEAE-dextran in the infection medium. The β -gal and luciferase genes are also

induced by HIV-2 infection.



STERILITY: Negative for bacteria, mycoplasma, and fungi

STORAGE: Liquid Nitrogen recommended

SOURCE: Dr John C. Kappes, Dr. Xiaoyun Wu and Tranzyme Inc. (courtesy

of NIH AIDS Research and reference Reagent Programme)

REFERENCE: Wei X et al, Antimicrob Agents Chemother **46**: 1896-1905, 2002

Derdeyn CA et al, *J Virol* **74**: 8358-8368, 2000

Platt EJ et al, *J Virol* **72**: 2855-2864, 1998

RESTRICTION: Not for Commercial use

ACKNOWLEDGEMENTS: Publications should acknowledge the donor of the reagent and the

Centre for AIDS Reagents. Suggested wording can be found on our

website in the "Acknowledgement" section at:-

www.nibsc.org/science_and_research/virology/centre_for_aids_reagents.aspx

Please also ensure that you send us a copy of any papers resulting from work using reagents acquired through CFAR, this can be by e-

mail or printed copy

