Centre for AIDS Reagents

Data Sheet

NAME: U38

REPOSITORY REFERENCE: ARP039

SPECIES/TYPE: U937 Monocyte-like cells

SPECIAL CHARACTERISTICS: U38[1] is a U937 derivative that contains stably integrated, silent copies of the HIV-1 LTR promoter linked to the CAT gene. This cell line was generated by infection of U937 cells with a helper-free recombinant retroviral vector containing the HIV-1 LTR-CAT gene construct. U38 was selected in geneticin (G418) under limiting dilution and is a sensitive indicator cell line for HIV-1 Tat. When infected by HIV-1, U38 produces high levels of chloramphenicol acetyl transferase (CAT)[1,2]. Morphology is monocyte-like. Contains LTR sequences to +80 in the R region. Contains the entire U3 region, but lacks U5 sequences.

GROWTH CHARACTERISTICS: Split twice weekly 1:10. U38 cells are stable and do not need to be maintained in selection medium. If growth in selection medium is desired, propagation medium containing 700 µg/ml G418 should be used. Wash the thawed cells in propagation medium and centrifuge for 10 minutes at 1000 rpm before seeding the cells in a culture flask.

CULTURE MEDIUM: RPMI 1640, 90%;
Foetal calf serum, 10%

PROPAGATION: Sub-culture at 2-4 day intervals

STORAGE: Liquid nitrogen

SOURCE:

Dr B Felber and Dr G Pavlakis courtesy of the NIH AIDS Research and Reference Reagent Program.

REFERENCE:

1

Felber BK, Pavlakis GN. A quantitative bioassay for HIV-[1] based on trans-activation. *Science* **239:**184-187, 1988.

Schwartz S, Felber BK, Fenyo EM, Pavlakis GN. Rapidly and slowly replicating human immunodeficiency virus type 1 isolates can be distinguished according to target-cell tropism in T-cell and monocyte cell lines. *Proc Natl Acad Sci USA* **86:**7200-7203, 1989.

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)

NOTE:

An NCI patent application has been filed on the use of the cell line U38. Corporate requests should be directed in writing to: B.K. Felber or G.N. Pavlakis, National Cancer Institute, FCRDC, ABL-Basic Research Program, P.O. Box B/Building 539, Room 121, Frederick, Maryland 21702-1201. Phone: (301) 846-1474, FAX (301) 846-5991.