

## **DATA SHEET**

## For research use only. Not for use in humans.

Reagent: Human Immunodeficiency Virus Type 1 (HIV-1) Infected U937 Cells (U1)

Catalog Number: ARP-165

Lot Number: 190454

Release Category: C

**Description:** U1 is a subclone of U937 that has been chronically infected with HIV-1. U937 is a pro-monocyte

obtained from a pleural effusion of a two-year-old Caucasian male with diffuse histiocytic

lymphoma.

**Provided:** Each vial of ARP-165 contains approximately 5.5 × 10<sup>6</sup> cells in 0.8 mL of freeze medium.

Post-thaw viability was 98%. Phorbol myristate acetate (PMA) induced RT cpm/15µL

supernatant was 274/4,422 (noninduced/induced).

Propagation Medium: The recommended propagation medium is RPMI-1640 supplemented with 2 mM L-glutamine,

NEAA and 10% heat-inactivated fetal bovine serum (FBS).

Freeze Medium: The recommended freeze medium is 90% heat-inactivated FBS, 10% DMSO.

**Growth Characteristics:** When thawing, slowly dilute the cells with 37°C medium dropwise. Begin the culture at 2.0 × 10<sup>6</sup>

cells/mL, splitting the cells 24 hours later to give a concentration of  $1.0 \times 10^6$  cells/mL. Passage the cells every four days thereafter to a concentration of  $1.0 \times 10^6$  cells/mL. ARP-165 cells grow

in suspension with a doubling time of 36 hours.

Morphology: Large, semi-granular suspension cell line

**Sterility:** Tests for bacteria, fungi and mycoplasma were negative.

**Special Characteristics:** These cells show minimal constitutive expression of virus. Certain cytokines, in addition to PMA,

can induce virus expression. The cells can take up and secrete the virus into the medium. The surface expression of CD4 is low. This cell line is useful for latency induction experiments. Cells should remain in log phase expanded growth (>98% viability) immediately prior to stimulation. Supernatant reverse transcriptase activity and viral antigens can be detected approximately 24

to 48 hours after stimulation. The alternate names for this cell line are: U1, U1/HIV-1.

**Recommended Storage:** Keep at -100°C or colder, preferably in the vapor phase of a liquid nitrogen freezer.

Contributor: Dr. Thomas Folks

**Reference:** Folks, T. M., et al. "Cytokine-Induced Expression of HIV-1 in a Chronically Infected Promonocyte

Cell Line." Science 238 (1987): 800-802. PubMed: 3313729.

Citation: Acknowledgment for publications should read "The following reagent was obtained through the

NIH HIV Reagent Program, Division of AIDS, NIAID, NIH: Human Immunodeficiency Virus Type 1 (HIV-1) Infected U937 Cells (U1), ARP-165, contributed by Dr. Thomas Folks." Also

include the reference cited above in any publication.

Biosafety Level: 2 Appropriate safety procedures should always be used with this material. Laboratory safety is

discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). 6th ed. Washington, DC: U.S.

Government Printing Office, 2020.

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