



NIH AIDS Reagent Program

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DATA SHEET

Reagent: THP-1 NCI DC-SIGN+ Cells

Catalog Number: 9950

Lot Number: 051164

Release Category: C

Provided: 2 x 10⁶ cells/vial and viability is 93%.

Cell Type: Human monocytic cell line

Propagation Medium: RPMI 1640, 90%; fetal bovine serum, 10%.

Freeze Medium: RPMI 1640, 70%; fetal bovine serum, 20%; DMSO, 10%.

Growth Characteristics: Suspension cell line. Doubling time of approximately 24 hours.

Morphology: Monocytic.

Sterility: Negative for mycoplasma, bacteria and fungi

Description: THP-1_{NCI} cells transduced to express DC-SIGN.

Special Characteristics: THP-1_{NCI} cells (cat# 9949) were obtained from Dr. Howard Young (NCI) and transduced with the MLV vector MX-DC-SIGN and FACS sorted as a population for high levels of DC-SIGN expression. The MX-DC-SIGN vector encodes no drug-selectable marker gene. Thus, early freezes of this line should be established. Variable expression of DC-SIGN will be observed in the cell population if kept more than one month in culture. THP-1_{NCI}/DC-SIGN cells do **not** support DC-SIGN-mediated HIV transmission to bystander cells *in trans*. The THP-1_{NCI} parental line expresses low levels of endogenous DC-SIGN. These cells also express CD4 and can be infected by X4-tropic HIV.

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.

DC-SIGN. These cells also express CD4 and can be infected by X4-tropic HIV.

Recommended Storage:

Liquid nitrogen

Contributor:

Drs. Li Wu and Vineet N. KewalRamani, HIV Drug Resistance Program, NCI.

References:

Wu, L., Martin, T. D., Carrington, M., & KewalRamani, V. N. (2004). Raji B cells, misidentified as THP-1 cells, stimulate DC-SIGN-mediated HIV transmission. *Virology*, 318(1), 17-23. doi:10.1016/j.virol.2003.09.028 [PUBMED](#)

S. Tsuchiya, M. Yamabe, Y. Yamaguchi, Y. Kobayashi, T. Konno and K. Tada. (1980). Establishment and characterization of a human acute monocytic leukemia cell line (THP-1). *Int J Cancer*, 26(2), 171-6. [PUBMED](#)

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: THP-1 NCI DC-SIGN+ Cells from Drs. Li Wu and Vineet N. KewalRamani." Also include the reference cited above in any publications.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact: Dr. Jeffrey W. Thomas, NCI Technology Transfer Center, ATRF Room E3202, PO Box B, Frederick, MD 21701, Email: jeffreyt@mail.nih.gov, Tel: (301) 846-5465, Fax: (301) 846-6820, before the reagent can be released. Tel: 301-846-5465.

Last Updated

June 04, 2018

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