

## Data Sheet

PAGE 1/3

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| <b>BCRJ Code:</b>         | 0234   |
| <b>Cell Line:</b>         | THP-1  |
| <b>Species:</b>           | Homo sapiens   |
| <b>Vulgar Name:</b>       | Human  |
| <b>Tissue:</b>            | Peripheral Blood   |
| <b>Cell Type:</b>         | Monocyte   |
| <b>Morphology:</b>        | Monocyte   |
| <b>Disease:</b>           | Acute Monocytic Leukemia   |
| <b>Growth Properties:</b> | Suspension   |
| <b>Sex:</b>               | Male   |
| <b>Age/Ethnicity:</b>     | 1 Year /   |
| <b>Applications:</b>      | This cell line is a suitable transfection host.  |
| <b>DNA Profile:</b>       | Amelogenin: X,Y CSF1PO: 11,13 D13S317: 13 D16S539: 11,12 D5S818: 11,12 D7S820: 10 THO1: 8,9.3 TPOX: 8,11 vWA: 16   |
| <b>Products:</b>          | lysozyme   |
| <b>Biosafety:</b>         | 1  |
| <b>Additional Info:</b>   | The cells are phagocytic (for both latex beads and sensitized erythrocytes) and lack surface and cytoplasmic immunoglobulin. [58053] Monocytic differentiation can be induced with the phorbol ester 12-O-tetradecanoylphorbol-13-acetate (TPA). [22193] |



**Data Sheet**

PAGE 2/3

**Culture Medium:**

RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose and 10% of fetal bovine serum.

**Subculturing:**

Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 2-4 x 10<sup>5</sup> viable cells/mL. Subculture when cell concentration reaches 8x10<sup>5</sup> cells/mL. NOUVE: Do not allow the cell concentration to exceed 1 x 10<sup>6</sup> cells/mL

**Subculturing Medium Renewal:**

Every 2 to 3 days

**Culture Conditions:**

Atmosphere: air, 95%; carbon dioxide (CO<sub>2</sub>), 5% Temperature: 37°C

**Cryopreservation:**

95% FBS + 5% DMSO (Dimethyl sulfoxide)

**Thawing Frozen Cells:**

**SAFETY PRECAUTION:** It is highly recommended that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submerged in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the Oring and cap out of the water. Thawing should be rapid (approximately 2 minutes). 2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions. 3. For cells that are sensitive to DMSO is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4. Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in an appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).

## Data Sheet

PAGE 3/3

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| <b>References:</b>  | 22193: Tsuchiya S, et al. Induction of maturation in cultured human monocytic leukemia cells by a phorbol diester. Cancer Res. 42: 1530-1536, 1982. PubMed: 6949641 22285: Skubitz KM, et al. Human granulocyte surface molecules identified by murine monoclon |
| <b>Depositors:</b>  | ANDRESSA COOPE DOS SANTOS; UNICAMP  |
| <b>ATCC:</b>        | TIB-202   |
| <b>Cellosaurus:</b> | <a href="#">CVCL_0006</a>   |