THP-1 NFAT-Luc2

TB-202-NFAT-LUC2™

Description

- **Organism** Homo sapiens, human
- **Tissue** Peripheral blood
- **Age** 1 year
- **Gender** Male
- **Morphology** monocytic
- **Growth properties** Suspension
- **Disease** Acute monocytic leukemia
- **Cells per vial** 6.0 to 8.0 x 10^6
- **Volume** 1.0 mL

Storage Conditions

- **Product format** Frozen
- **Storage conditions** Vapor phase of liquid nitrogen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of Biosafety in Microbiological and Biomedical Laboratories (BMBL), U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization’s policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when
handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed 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 vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

- **Temperature** 37°C
- **Atmosphere** 95% Air, 5% CO₂

Handling Procedures

- **Unpacking and storage instructions**
  1. Check all containers for leakage or breakage.
  2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

- **Complete medium** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium (ATCC 30-2001). To make the complete growth medium, add the following components to the base medium:
  - Fetal bovine serum (FBS; ATCC 30-2020) to a final concentration of 10%
  - Puromycin to a final concentration of 1 µg/mL
  - 2-Mercaptoethanol to a final concentration of .05 mM

- **Handling Procedure** To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.
  1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of
contamination, keep the O-ring 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. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium
and spin at approximately 125 x g for 8 to 12 minutes.
4. Resuspend cell pellet with the recommended complete medium (see the specific batch
information for the culture recommended dilution ratio) and dispense into a 25 cm² or a 75 cm
² culture flask. 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 complete 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).
5. Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is
recommended if using the medium described on this product sheet.

• **Subculturing procedure**
  Cultures can be maintained by addition or replacement of fresh medium. Alternatively, cultures can
  be established by centrifugation with subsequent resuspension at 2 to 4 X 10⁵ viable cells/mL.
  Subculture when cell concentration reaches 8 X 10⁵ cells/mL. Do not allow the cell concentration to
  exceed 1 X 10⁶ cells/mL. Corning® T-75 flasks (catalog #431464) are recommended for
  subculturing this product.

  **Medium Renewal:** Add fresh medium every 2 to 3 days (depending on cell density).
  • **Reagents for cryopreservation** Complete growth medium supplemented with 5% (v/v) DMSO
    (ATCC 4-X)

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**Material Citation**

If use of this material results in a scientific publication, please cite the material in the following
manner: THP-1 NFAT-Luc2 (ATCC TIB-202-NFAT-LUC2)

**References**

References and other information relating to this material are available at www.atcc.org.

**Warranty**

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from
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Revision

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