



# HCM-BROD-0027-C34

PDM-112™

## Description

A patient-derived next-generation cancer model generated by the Human Cancer Models Initiative (HCMI). HCM-BROD-0027-C34 (ATCC No. PDM-112) was isolated from metastatic cancer of lung tissue. This tumor-derived model can be used in basic research and pharmacological screening applications. Data for the parental tumor and the tumor-derived organoid models are available at the GDC. Additional molecular characterizations may be available at the GDC. Additional controlled data may be available via dbGaP.

**Organism:** *Homo sapiens*, human

**Tissue:** Lung

**Morphology:** neuronal

**Growth properties:** Mixed: suspension and aggregate

**Disease:** Cancer; Metastatic

**Cells per vial:**  $\geq 1.0 \times 10^6$

**Volume:** 1.0 mL

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** Vapor phase of liquid nitrogen

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## 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.

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## BSL 1

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.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

**Temperature:** 37°C

**Atmosphere:** 95% Air, 5% CO<sub>2</sub>

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## 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  $-130^{\circ}\text{C}$ , preferably in liquid nitrogen vapor, until ready for use.

**Complete medium:**

NeuroCult NS-A Basal Medium (StemCell Technologies #05750) with NS-A Proliferation Supplement (StemCell Technologies #05754) + 20 ng/mL EGF (StemCell Technologies #78003.1) + 20 ng/mL bFGF (Peprotech #AF-100-15) + 2  $\mu\text{g/mL}$  Heparin (StemCell Technologies #07980).

Prepare media according to the manufacturer's instructions: Stem Cell Technologies Catalog #5751

**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  $-70^{\circ}\text{C}$ . Storage at  $-70^{\circ}\text{C}$  will result in loss of viability.

1. Thaw the vial by gentle agitation in a  $37^{\circ}\text{C}$  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  $200 \times g$  for 5 minutes.
4. Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended seeding density) and dispense into a  $25 \text{ cm}^2$  or a  $75 \text{ cm}^2$  ultra low attachment 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  $37^{\circ}\text{C}$  in a suitable incubator. A 5%  $\text{CO}_2$  in air atmosphere is recommended if using the medium described on this product

sheet.

**Subculturing procedure:**

**Important:** use Ultra Low Attachment (ULA) flasks/plates when culturing this model such as Corning #3814.

Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $2.5\text{--}5 \times 10^5$  cells/mL and maintain between below  $1 \times 10^6$  cells/mL.

**Medium Renewal:** Add fresh medium every 2 to 3 days (depending on cell density).

Large neurospheres should be mechanically dissociated to small fragments by repeated pipetting. Do not dissociate to single cells.

**Reagents for cryopreservation:** Complete growth media containing 10% 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: HCM-BROD-0027-C34 (ATCC PDM-112)

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**References**

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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