HCM-CSHL-0322-C20

PDM-254™

Description

A patient-derived next-generation cancer model generated by the Human Cancer Models Initiative (HCMI). HCM-CSHL-0322-C20 (ATCC No. PDM-254) was isolated from primary cancer of large intestine 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: Large intestine; Rectum
Morphology: organoid
Growth properties: Embedded 3D culture
Disease: Cancer; Primary
Cells per vial: ≥ 1.0 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 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.

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% CO_2

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:

To prepare the complete medium for this organoid model, please refer to the Organoid Media Formulation #1.

ATCC offers the recombinant proteins, small molecules, and other supplements to make this complete medium; Organoid Growth Kit 1A (ATCC ACS-7100) provides these supplements in a convenient, pre-portioned, ready-to-reconstitute format that does not require aliquoting or storage once prepared.

Handling Procedure:

Seeding density: We recommend seeding this model at 0.25 - 1 x 10^6/ viable cells in 100 µL of ECM per well of a 6-well plate.

ECM: We recommend culturing this model in ATCC Cell Basement Membrane (ATCC ACS-3035) or Corning Matrigel. Include 10 µM ROCK Inhibitor Y-27632 (ATCC ACS-3030) in medium for the first 2-3 days following subculture.

For a brief overview of the thawing procedure see our quickstart guide Thawing Cryopreserved Human Organoids.

Subculturing procedure:

Initiating culture from frozen vials: For a brief overview of the thawing procedure see our quickstart guide Thawing Cryopreserved Human Organoids.

Seeding density: 0.25 - 1 x 10^6/ viable cells in 100 µL of ECM per well of a 6-well plate. Alternatively, split at 1:2-1:4 every 7-10 days. For example, collect organoids from 100 µL of extracellular matrix (ECM) from a single well of a 6-well plate and re-seed into 2-4 wells of a 6-well plate in 100 µL ECM per well.

Media renewal: Perform a complete medium change every 2-3 days. Include 10 µM ROCK Inhibitor Y-27632 (ATCC ACS-3030) in medium for the first 2-3 days following subculture.

For a brief overview of the subculture and expansion of organoids see our quickstart guide Subculture and Expansion of Human Organoids Protocol.

For more details on the handling and culture of organoids see our methods paper in *Current Protocols in Cell Biology*.

Reagents for cryopreservation: We recommend cryopreserving this model in ATCC Stem Cell Freezing Media (ATCC ACS-3020).
Cryopreservation:

For a brief overview of the cryopreservation procedure for organoids see our quickstart guide Organoid Cryopreservation Protocol.

For more details on the handling and culture of organoids see our methods paper in *Current Protocols in Cell Biology*.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: HCM-CSHL-0322-C20 (ATCC PDM-254)

References

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

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