Primary Peripheral Blood CD14+ Monocytes, Normal, Human

PCS-800-010™

Description

Primary Peripheral Blood CD14+ Monocytes are primary peripheral blood mononuclear cells isolated from normal blood tissue that have been fully authenticated and characterized by ATCC. These cells can be used in the study of immunology, infection, cancer, hematology, and T-cell suppression assay. One vial contains a minimum of 5.0×10^7 viable cells (provided).

Organism: *Homo sapiens*, human
Cell Type: mononuclear cell
Tissue: Blood
Age: lot-specific
Gender: Lot-specific
Morphology: spherical; variable after culturing
Growth properties: Suspension, variable after culturing
Disease: Normal
Cells per vial: ≥ 5.0×10^7
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.

All tissues used for isolation are obtained under informed consent and conform to HIPAA regulations to protect the privacy of the donor's Personally Identifiable Information. It is best to use caution when handling any human cells. We recommend that all human cells be accorded the same level of biosafety consideration as cells known to carry Human immunodeficiency virus (HIV) and other bloodborne pathogens. With infectious virus assays or viral antigen assays, even a negative test result may not exclude the possibility of the existence of a latent viral genome or infectious viral particles below the lower limit of detection of that assay.

ATCC recommends that appropriate safety procedures be used when handling all primary cells and cell lines, especially those derived from human or other primate material. Handle as a potentially biohazardous material using universal precautions. Cells derived from primate lymphoid tissue may fall under the regulations of 29 CFR 1910.1030 Bloodborne Pathogens.

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.

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: CD14+ cells have a limited lifespan in culture and should only be thawed immediately prior to their intended use. ATCC does not recommend maintaining CD14+ monocytes cells in culture in the absence of application-specific growth factors.

Handling Procedure:

1. Rapidly thaw cryovial in a 37°C water bath. Remove the vial before all the ice is thawed.
2. Decontaminate the cryovial with ethanol and move it to a biosafety cabinet.
3. While on ice, transfer contents of the vial to a 15 mL conical tube.
4. Rinse the cryovial with 1 mL of ice-cold thawing media (Hank's Balanced Salt Solution without Ca^{2+} or Mg^{2+} (ATCC 30-2213), supplemented with 10% Fetal Bovine Serum (ATCC 30-2020) and slowly transfer to the cells in the conical tube.
5. Slowly pipet 10X the vial volume of thawing media into the conical tube
6. Take a sample for counting and viability assessment.

7. Centrifuge the remaining contents of the vial at 4°C at 300 x g for 5 minutes to pellet cells.
8. Aspirate the wash leaving a few mL behind.
9. Re-suspend cells in the media of choice.

Subculturing procedure: N/A

Culture maintenance: N/A

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Primary Peripheral Blood CD14+ Monocytes, Normal, Human (ATCC PCS-800-010)

References

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

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