Product sheet

Human Subcutaneous Pre-Adipocytes | 300697

General information

Description	Human Subcutaneous Pre-Adipocytes are primary preadipocytes isolated from human subcutaneous adipose tissue. They can be expanded and differentiated into mature adipocytes, serving as a model for adipogenesis, metabolism, obesity, and diabetes research.
Organism	Human
Tissue	Adipose tissue (subcutaneous)
Disease	Normal
Applications	Adipogenesis and differentiation studies; obesity, metabolism and diabetes research

Characteristics

Morphology	Fibroblast-like (preadipocyte)
Cell type	Preadipocyte
Growth properties	Adherent

Regulatory Data

Citation	Human Subcutaneous Pre-Adipocytes (Cytion catalog number 300697)
Biosafety level	1
NCBI_TaxID	9606

Biomolecular Data

Handling

Culture Medium	Preadipocyte Growth Medium
Supplements	Growth supplements; serum (FBS) as per medium

Human Subcutaneous Pre-Adipocytes | 300697

Dissociation Reagent	Trypsin-EDTA or Accutase
Doubling time	Approximately 48-72 hours
Subculturing	At 70-80% confluence, wash with PBS, detach with Trypsin-EDTA or Accutase, neutralize, centrifuge at 300xg for 3 min, and reseed into fresh medium.
Split ratio	1:2 to 1:3
Seeding density	5 x 10^3 cells/cm2
Fluid renewal	Every 2-3 days
Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

Thawing and Culturing Cells

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
7. Follow the procedure described under Post-Thaw Recovery

Incubation Atmosphere	37°C, 5% CO_2, humidified atmosphere.

Human Subcutaneous Pre-Adipocytes | 300697

Shipping Conditions	Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.
Storage Conditions	For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis