

hCMEC/D3 | 305024

General information

Description hCMEC/D3 is a cell line derived from human choroid plexus epithelial cells. It is a highly proliferative, immortalized cell line that maintains the morphology and growth characteristics of the primary cells. The cells are typically grown in DMEM/F12 medium supplemented with 10% fetal bovine serum (FBS) and 10% horse serum (HS). hCMEC/D3 cells are used for various applications, including cell biology, molecular biology, and drug screening.

Organism Human

Tissue Choroid plexus epithelium, Choroid plexus

Disease Choroid plexus epithelial cell carcinoma (hCMEC/D3 is a cell line derived from hTERT SV40; immortalized cells)

Metastatic site Brain (intracranial), Lung (intracranial)

Applications Cell culture, Differentiation (BBB); Cell biology; Cell growth; Cell death; Cell cycle; Cell signaling (CNS); Cell migration; Cell adhesion; Cell viability; Cell morphology

Synonyms hCMEC/D3, CMEC/D3, hCMEC/D3 (ATCC CRL-2914), hCMEC/D3 (ATCC CRL-2914)/D3

Characteristics

Age 1-3 months

Gender Male

Ethnicity Caucasian

Morphology Epithelial

Cell type Epithelial

Growth properties Adherent

References

Citation hCMEC/D3 (ATCC CRL-2914) Cytion 305024

Biosafety level 1

Product sheet

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NCBI_TaxID 9606

CellosaurusAccession CVCL_U985

GMO Status GMO-S1: (hCMEC/D3) SV40 T-Antigen

Viruses SV40 (SV40)

Culture Medium EGM -2 MV BulletKit (Lonza, Lonza CC-3202)

Supplements EBM-2

Dissociation Reagent Accutase-EDTA 0.25% (Accutase; EDTA)

Doubling time 24 36 hours

Subculturing 3-5 passages, 37°C, 300xg

Split ratio 1 3

Seeding density 1×10^4 cells/cm²

Fluid renewal 2-3 times per week

Freeze medium 50% FBS + 10% DMSO, CM-1 (Cytion 800100)

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Thawing and Culturing Cells

1. Thaw the vial rapidly in a water bath at 37°C. Do not allow the cells to warm to room temperature. Transfer the cells to a pre-warmed medium.
2. Seed the cells into a pre-warmed medium. Incubate at 37°C in a humidified atmosphere of 5% CO₂.
3. After 24 hours, check the cells for attachment. If the cells do not attach, they may be dead. Try to re-plate the cells.
4. Once the cells are attached, change the medium. Remove 70% of the medium and replace with fresh medium.
5. After 48 hours, check the cells for attachment. If the cells do not attach, they may be dead. Try to re-plate the cells.
6. Once the cells are attached, change the medium. Remove 30% of the medium and replace with fresh medium.
7. After 72 hours, check the cells for attachment. If the cells do not attach, they may be dead. Try to re-plate the cells.
8. Once the cells are attached, change the medium. Remove 10% of the medium and replace with fresh medium.

Incubation Atmosphere 37°C, 5% CO₂, humidified

Flask Coating None

Freezing Procedure Freeze the cells in a freezing medium and store at -80°C.

Shipping Conditions Ship the cells at -80°C.

Storage Conditions Store the cells at -150°C for up to 196 days.

HLA

Sterility The cells are free of mycoplasmas and PCR detectable. The cells are free of endotoxins.