

hTert-Human Brain Microglia Cells
ORDER INFORMATION

Name of Products: hTert-Human Brain Microglia Cells (**hTert-HBMgs**)
Catalogue Number: **cAP-0040-hTert**
Product Format: Frozen Vial
Cell Number: > 1.0 x 10⁶/vial

General Information

Microglia, one of the glial cell types in the CNS, is an important integral component of neuroglial cell network. They have been observed in the brain parenchyma from the early stage of development to the mature state. Microglia act as brain macrophages when programmed cell death occurs during brain development or when the CNS is injured or pathologically damaged. Microglia can be considered as the main cell in brain immune surveillance, can present antigens in the molecular context of MHC class II expression to CD-4 positive T cells, are capable of Fc mediated phagocytosis, and share many common antigens with hemopoietic and tissue macrophages. Furthermore, there is accumulating evidence that microglia are involved in a variety of physiological and pathological processes in the brain by interacting with neurons and other glial cells and through production of biologically active substances such as growth factors, cytokines, and other factors.

Human brain microglia cells (HBMgs, **cAP-0040**) are isolated from healthy human brain tissue. After purification, HBMgs are cryopreserved and delivered frozen. hTert-HBMgs have been cultured/passaged for more than 10 passages after infected with hTert-lentiviral particles under Special Formulated Microglial Cell Growth Medium (MgGM, cAP-37B).

Characterization of the cells

CD45:	Positive
CD18:	Positive
CD68:	Positive

HBMgs are negative for HIV-1, HBV, HCV, and mycoplasma.

Product Use: hTert-HBMgs are for research use only.

Shipping: Frozen vials in dry ice package.

Handling of Arriving Cells

When you receive the cells in a frozen vial, you can transfer the vial of cells into a -80°C freezer for short period storage or a liquid nitrogen tank for long term storage. Thaw the cells in a 37°C water bath, and then transfer the cells into a T25 flask pre-coated with poly-L-lysine as described in details in Subculture Protocol.

Subculture Protocol

1. Prepare a Poly-L-Ornithine coated flask: Add 3 ml of Poly-L-Ornithine (10ug/ml in sterile H₂O) into one T-25 flask and leave the flask in room for overnight.
2. Rinse the poly-L-Ornithine coated flask with sterile water twice and the flask is ready to be used.
3. Warm MgGM (cAP-37B) before thawing the cells.
4. Place the vial of the hTert-HBMgs cells in a 37°C water bath, hold and rotate the vial gently until the contents are completely thawed. Remove the vial from the water bath immediately, wipe it dry, rinse the vial with 70% ethanol and transfer it to a sterile field. Remove the cap, being careful not to touch the interior threads with fingers. Using 1 ml Eppendorf pipette gently resuspend the contents of the vial.
5. Dispense the contents of the vial into 10ml of Universal Growth Medium (cAP-01B) and then spin down the cells @ 1000rpm for 10mins.
6. Discard the supernatant and resuspend the cells with 5 ml of pre-warmed full medium (cAP-37B) and transfer the cells into the pre-coated flask.
7. Culture the cells in a 37C incubator with 5% CO₂.
8. For best result, do not disturb the culture for at least 16 hours after the culture has been initiated. Change the growth medium the next day.

Note: hTert-HBMgs do not adhere to the flask tightly and handle the flask with care to avoid disturbance of the cells. If more cells are in suspension, please collect the cells by spinning down the cells (@1000rpm, 10min) when performing medium changes.

Related products

Microglia Growth Medium (MgGM)	cAP-37B	500ml	Angio-Proteomie
Poly-L-Ornithine stock solution (10 x)	cAP-38B	50 ml	Angio-Proteomie
HBSS w/o Ca ²⁺ , Mg ²⁺	cAP-11	100ml	Angio-Proteomie
Trypsin/EDTA Solution	cAP-23	100ml	Angio-Proteomie
Trypsin Neutralization Solution	cAP-28	100ml	Angio-Proteomie

Caution: Handling human tissue derived products is potentially bio-hazardous. Although each cell strain is tested negative for HIV, HBV and HCV DNA, diagnostic tests are not necessarily 100% accurate; therefore, proper precautions must be taken to avoid inadvertent exposure. Always wear gloves and safety glasses when working these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination.