

Human Dopaminergic Neuron Cells
ORDER INFORMATION

Name of Cells: Human Dopaminergic Neuron Cells (**HDaNCs**)
Catalogue Number: **cAP-0057**
Product Format: Frozen Vials
Cell Number: >5x 10⁵/vial

General Information

Human dopaminergic neuronal cells are isolated from fetal brain tissue obtained from agencies authorized to procure and distribute tissues for research.

Dopaminergic neuronal cells are selected in tyrosine free medium supplemented with a mixture of growth factors. Actively growing population of cells are tested for tyrosine hydroxylase (TH) expression by immunocytochemistry. HDaNCs cells are provided at > 5 x 10⁵ cells/vial @ Passage 1 with >70% TH positive. HDaNCs are grown in HDaNCs medium (supplemented with 10% FBS and growth factors). The cells are grown in regular tissue culture dishes and subcultured at a split ratio of 1:2 at confluence.

We recommend not to use the cells beyond 4 passages. There may be a significant decrease in the number of tyrosine hydroxylase positive cells after 4 passages as they are not maintained in selective medium to allow the growth of only cells expressing tyrosine hydroxylase.

Characterization of the cells

Tyrosine hydroxylase (TH): **>70% positive by immunofluorescence**

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

Product Use: HDaNCs are for research use only.

Shipping: Frozen Vials.

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 Quick coating solution (cAP-01) as described in details in Subculture Protocol.

Subculture Protocol

- A) Pre-coating of T25 flasks: Add 2ml of Quick Coating Solution (**cAP-01**) into one T25 flask and make sure whole surface of the flask is covered with the coating solution. Five minutes later, dispose excessive Quick Coating Solution by aspiration and the flask is ready to be used (no need for overnight incubation when using Quick Coating Solution). Other extracellular matrix can be used including gelatin, collagen, and fibronectin and you are advised to test the conditions for using those materials in advance.
- B) Rinse the cells in T25 flask with 5ml HBSS (**Room Temperature, RT**) twice.
- C) Add 2ml of Trypsin/EDTA (**RT**) (cAP-23) into one T25 flask (make sure the whole surface of the T25 flask is covered with Trypsin/EDTA), and gently dispose the excessive Trypsin/EDTA solution **within 60 seconds** with aspiration.
- D) Leave the T25 flask with the cells at 37C for extra 1-2 minute (the cells usually will detach from the surface within 1-2 minutes). You can monitor the cells under microscope and when most of cells become rounded up, hit the flask against the bench surface, and the cells will move on the surface of the flask when monitoring under microscope.
- E) Add 5ml Trypsin Neutralization Buffer and spin the cells down with 800g for 5 minutes.
- F) Re-suspend the cell pellet with 10ml of HDaNC growth medium and the cell suspension is transferred directly into 2 pre-coated T25 flasks (5ml each, and the cells are sub-cultured at 1:2)
- G) Change medium every 2-3 days and cells usually become confluent within 7 days (when split at a 1:4 ratio).

Related products

Quick Coating Solution	cAP-01	240ml	Angio-Proteomie
HDaNC Growth Medium	cAP-44	500ml	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.