NEUROMICS

Human iPSC – Sensory Neurons

Catalog #: IPS006

Cell #: >1x10^6 cells

Storage: Liquid Nitrogen until ready for culture.
While Culturing keep in 37°C CO_2 incubator

Product Format: Frozen Vial

GENERAL INFORMATION

Human iPSC- Sensory Neurons are derived from integration-free induced pluripotent stem cell (iPSC) lines. Cells are provided at passage 1.

Sensory neurons play a vital role in detecting and responding to various sensory stimuli, including touch, temperature, and pain. As one of the most significant neuronal subtypes in the human peripheral nervous system, they form neuronal-glial networks responsible for a variety of motor and sensory-mediated functions. Dysfunction of sensory neurons can lead to various neurological disorders, such as pain, sensory neuron illnesses, amyotrophic lateral sclerosis (ALS), and problems with mechano- or temperature perception.

Following our protocol, the cells are expected to exhibit high levels of MAP2 and Peripherin 5-7 days post-thawing.

Product is for Research use only.

Frozen Vials are shipped in a Dry Ice Package.

HANDLING OF ARRIVING CELLS

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.

3. To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

PRODUCT TESTING

- Negative for bacteria, yeast, fungi, and mycoplasma

MEDIUM

We recommend customers use our AlphaBioMatrix Solution (cat. HNM011) and Human Sensory Neuron Maturation Medium (cat. HNM006) to culture these cells.

www.neuromics.com

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phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com

PROTOCOL FOR THAWING THE CELLS

Note: If you have any questions or need clarification regarding the protocol for culturing these cells, please reach out to Dr. Jensen Auguste at (978) 608-1766 with your questions before beginning.

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1. Before thawing the cells, prepare the coating vessel by coating the plate with Poly-D-lysine solution (cat. PD001) overnight in the incubator**.** The next day, wash the plates twice with water and then coat them with AlphaBioMatrix Solution for an additional hour in the incubator. Ensure the plates do not dry at any stage.

2. Thaw the cells and place the vial in a 37°C water bath with gentle agitation for 1-2 minutes. It's important to keep the cap out of the water to minimize the risk of contamination. Spray the vial with 70% ethanol, wipe the vial, and place it under your biosafety cabinet.

3. Pipette the cells into a 15 mL conical tube with 5 mL of Human Sensory Neuron Maintenance Medium. Centrifuge at 300g for 5 minutes at room temperature.

4. After removing the supernatant, re-suspend the cells in the Human Sensory Neuron Maintenance Medium.

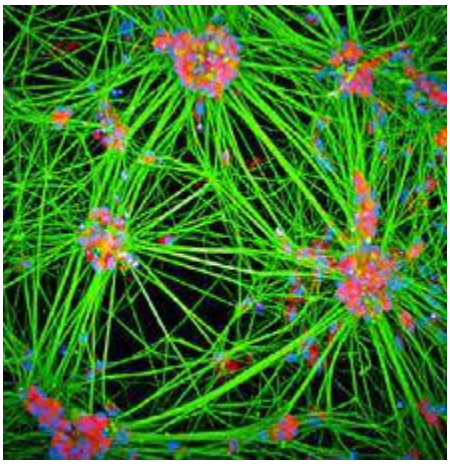
5. Seed the cells on a pre-coated plate at the desired density. Incubate the cells in a 37°C CO2 incubator overnight. Expect to observe some cell debris after the cell recovery process.

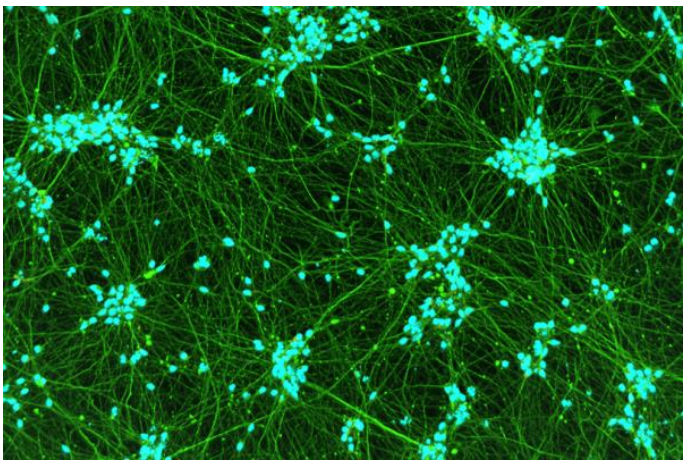
6. Execute a full media change after 24 hours

7. Implement a half-medium change every 3-4 days. This involves removing half of the media in the well first, and then adding the same amount of fresh media afterwards.

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 with these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination.





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