Applied StemCell, Inc.
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Datasheet

Human iPSC-Derived Cortical Neurons (Normal; Fibroblasts)

Product Information

Catalog Number	**ASE-9306**
Description	Applied StemCell provides highly pure human iPSC-derived cortical neurons that express neuronal markers, Tuj1 and MAP2, with purity higher than 85%. These neurons have been differentiated from iPSCs derived from normal human fibroblasts.
Species	*Homo Sapiens*
Tissue	Dermal skin (fibroblasts)
Age	51-55 years
Sex	Male
Race	Caucasian
Clinical information	Normal
Quantity	2 x 10^6 cells/vial
Quality Control	Each lot of cortical neurons has been tested for growth and viability following recovery from cryopreservation. In addition, each lot has been tested for expression of neuronal markers (Tuj1 and MAP2; Figures 1) with purity > 85%.
Shipping	Dry ice
Storage and Stability	Store in liquid nitrogen freezer immediately upon receipt. This product is stable for at least 6 months from the date of receiving when stored as directed.
Safety Precaution	**PLEASE READ BEFORE HANDLING ANY FROZEN VIALS**. Please wear appropriate Personal Protection Equipment (lab coat, thermal gloves, safety goggles and a face shield) when handling frozen vials. Please be aware that the following scenario can occur: Liquid nitrogen can leak into the vials when the vials are submerged in liquid nitrogen. Upon thawing, the liquid nitrogen returns to the gas phase, resulting in a dangerous build-up of pressure within the vial. This can result in the vial exploding and expelling not only the vial contents but also the vial cap and plastic fragments of the vial.
Restricted Use	This product is for research use only and not intended for human or animal diagnostic or therapeutic uses.
Disclaimer	Applied StemCell uses reasonable efforts to include accurate and up-to-date information on this product datasheet. We make no warranties or representation as to its accuracy. This product is sent with the condition that you are responsible for its safe

storage, handling, and use. Applied StemCell is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, Applied Stemcell is not liable for damages arising from the misidentification or misrepresentation of cultures.

Immunocytochemical Characterization of Human iPSC-derived Cortical Neurons

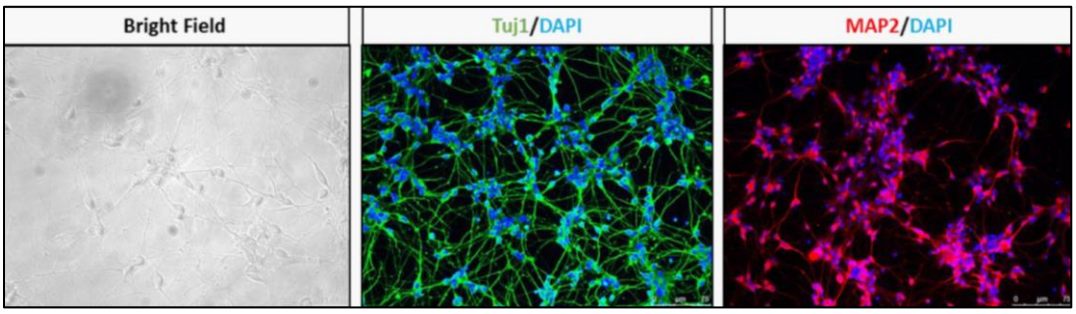

Figure 1. Immunohistochemical analysis of plated iPSC-derived cortical neurons showing typical neuronal morphology and high expression levels of neuronal markers, Tuj1 and MAP2.

Protocol

Thawing of Frozen Cells

1. Upon receipt of the frozen cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.
2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for ~2 minute. Keep the cap out of water to minimize the risk of contamination.
3. Transfer the cells into a 15 mL conical tube with 5 mL fresh human neuron maintenance media (ASE-9321NM).
4. Centrifuge at 200g for 5 minutes at room temperature.
5. Remove the supernatant and re-suspend the cells in 1 mL maintenance media.
6. Seed the cells on Poly-L-Ornithine/Laminin or Matrigel-coated plates.
7. Incubate in 37°C CO_2 incubator overnight.
8. Change media twice a week.
   Note: It is recommended to remove half volume of the spent medium and add equal volume of the pre-warmed fresh medium to avoid cell detachment or cell death.
9. The neurons can be maintained in culture for at least a month.