Neural Stem Cell Line, Human

Product Descriptions

Neural stem cells (NSCs) are neural progenitor cells that are capable of differentiating to different kinds of cells in the nervous system when under defined conditions. Taking advantage of their consistent propagation, NSCs have great potential for the study of neurogenesis, neurodegenerative diseases, and clinical transplantation applications. Alstem's human Neural Stem Cell Line (Cat# hNSC11) is derived from human induced pluripotent stem cells, which are generated from neonatal foreskin fibroblasts using Alstem's unique footprint-free episomal iPSC reprogramming method. These cells are able to proliferate regularly without differentiating to neural lineage cells when cultured in bFGF and EGF containing medium.

Characterization

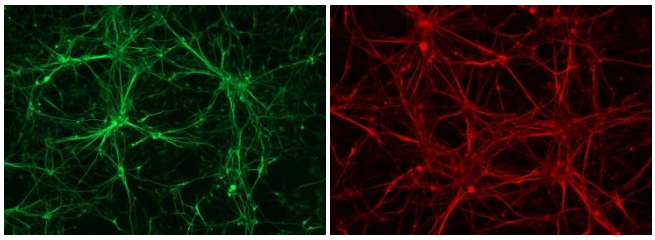

Figure 1. Neurons derived from Alstem's NSCs stained with beta-III-tubulin

Highlights

Neural stem cells not only serve as a important source for study of development, pathogenesis, regeneration, and rehabilitation of the nervous system, but also are a promising treatment modality for diseases associated with the nervous system. Alstem's hNSC11 cell lines possess the following features:

- Derived from footprint-free human iPS cells
- Homogeneous population
- Can differentiate to over 90% of neurons under defined conditions
- Off the shelf - simple thaw the cells and plate them onto serum-free, feeder-free culture

ALSTEM, INC
2600 Hilltop Drive, BLDG B, STE C328, Richmond, CA 94806
Tel: (510) 708-0096 Fax: (866) 605-8766
www.alstembio.com info@alstembio.com

Product Specification Sheet

Product Name	**Human Neural Stem Cell Line**
Description	Neural stem cells (NSCs) are neural progenitor cells that are capable of differentiating to different kinds of cells in the nervous system when under defined conditions. Taking advantage of their consistent propagation, NSCs have great potential for the study of neurogenesis, neurodegenerative diseases, and clinical transplantation applications. Alstem's human Neural Stem Cell Line (Cat# hNSC11) is derived from human induced pluripotent stem cells, which are generated from adult skin fibroblasts using Alstem's unique footprint-free episomal iPSC reprogramming method. These cells are able to proliferate regularly without differentiating to neural lineage cells when cultured in bFGF and EGF containing medium.
Catalog Number	hNSC11
Size	$1x10^6$ cells/vial
Shipping	Dry ice
Storage and Stability	Store in vapor phase of liquid nitrogen immediately upon receipt. This product is stable for 12 months when stored as directed.
Quality Control	Each lot of hNSCs is tested for growth and viability after recovery from cryopreservation. In addition, each lot is tested for expression of Nestin to ensure its undifferentiating characteristics.
Safety Precaution	**ALSTEM highly recommends that protective gloves, a lab coat, and a full-face mask always are worn when handling frozen vials.** It is important to note that some liquid nitrogen can leak into the vials when submersed in liquid nitrogen. Upon thawing, the liquid nitrogen returns to the gas phase, resulting in excessive pressure within the vial that can cause the vial to explode or expel the cap with dangerous force.
Restricted Use	For Research Use Only. Not for use in diagnostic or therapeutic procedures.

ALSTEM, INC
2600 Hilltop Drive, BLDG B, STE C328, Richmond, CA 94806
Tel: (510) 708-0096 Fax: (866) 605-8766
www.alstembio.com info@alstembio.com