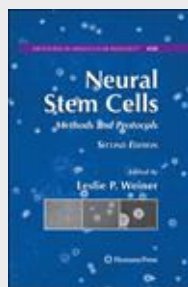


Protocol



large version

Adult Neural Stem Cells

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Summary

Neural stem cells (NSCs) have been identified in the mature central nervous system (CNS), and they reside in specific areas. Cultures of NSCs can be successfully established *in vitro* by exploiting the NeuroSphere assay. This methodology relies on the continuous exposure of neural cells to mitogens such as epidermal growth factor and fibroblast growth factor-2. Under these conditions, only NSCs and highly undifferentiated progenitors proliferate, whereas committed precursors and terminally differentiated cells are eliminated from the culture. The proper application of this method to the cells allows the establishment of long-term expanding stable NSC lines, starting from different neural tissues as the adult rodent CNS and human brain tumor specimens.

Key Words Neural stem cell - adult neurogenesis - epidermal growth factor - fibroblast growth factor - cancer stem cell - brain tumor

References secured to subscribers.

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