## Product Description

Schwann cells are neural crest derivatives that ensheathe and myelinate axons of peripheral nerves [1]. Each Schwann cell wraps around the shaft of an individual peripheral axon, forming myelin sheaths along segments of the axon. Schwann cells play important roles in the development, function, and regeneration of peripheral nerves. When an axon is dying, the Schwann cells surrounding it aid in its digestion, leaving an empty channel formed by successive Schwann cells, through which a new axon may then grow from a severed end. The number of Schwann cells in peripheral nerves is tightly regulated [2]. Their proliferation in vitro can be stimulated by various growth factors including PDGF, FGF, neuregulin, and others [3]. Schwann cells provide a relatively simple, well-defined, and accessible mammalian model for the study of a number of developmental questions. It is also of particular clinical importance in understanding the biology of Schwann cells, not only in the context of neuropathies and nerve regeneration, but also because the cells or their precursors may be especially well suited for implants to facilitate repair in the CNS.

iXCells Biotechnologies provides high quality Mouse Schwann Cells (MSC), which are isolated from neonatal mouse sciatic nerves and cryopreserved at P1, with >0.5 million cells in each vial. MSC express S-100, GFAP, and CD90. They are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand in Schwann Cell Growth Medium (Cat# MD-0055) under the condition suggested by iXCells Biotechnologies.

## Product Details

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| **Tissue** | Neonatal mouse sciatic nerves (strain C57BL/6 or CD1) |
| **Package Size** | 0.5 million cells/vial |
| **Passage Number** | P1 |
| **Shipped** | Cryopreserved |
| **Storage** | Liquid nitrogen |
| **Growth Properties** | Adherent |
| **Media** | Schwann Cell Growth Medium (Cat# MD-0055) |

## References

[1] Jessen, K. R. and Mirsky, R. (1999) Schwann cells and their precursors emerge as major regulators of nerve development. Trends Neurosci. 22:402-410.
[2] Syroid, D. E., Maycox, P. R., Burrola, P. G., Liu, N., Wen, D., Lee, K. F., Lemke, G., Kilpatrick, T. J. (1996) Cell death in the Schwann cell lineage and its regulation by neuregulin. Proc. Natl. Acad. Sci. USA 93:9229-9234.
[3] Rahmatullah, M., Schroering, A., Rothblum, K., Stahl, R. C., Urban, B and Carey, D. J. (1998) Synergistic regulation of Schwann cells proliferation by heregulin and forskolin. Mol. Cell. Biol. 18:6245-6252.

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