

Product Description

Perineurial fibroblasts are of mesenchymal origin and form the perineurium. The perineurium plays an important role in maintaining the integrity of the internal peripheral nerve environment by creating a physical barrier that, under physiologic conditions, limits the entry of biologically active proteins, infectious agents, and blood-borne cells into the nerve bundles [1]. The perineurial fibroblasts are characterized by distinct ultrastructural features, including non-branching thin cytoplasmic processes coated by an external lamina and joined at their ends by a tight junction, few organelles, actin and vimentin filaments, and numerous pinocytotic vesicles [2]. Perineurial fibroblasts are initially recruited from the surrounding mesenchyme to form a loose, permeable sheath around axons and Schwann cells, where they are separated by the extracellular matrix. These cells later undergo a mesenchymal-to-epithelial transition to form tight junctions and organize into the perineurium. Perineurial fibroblasts are immunoreactive for vimentin and epithelial membrane antigen but not for the Schwann cell marker S-100 [3].

iXCells Biotechnologies provides high quality Mouse Perineurial Fibroblasts (MPNF), which are isolated from postnatal day 8 C57BL/6 mouse sciatic nerve and cryopreserved at P1, with >0.5 million cells in each vial. MPNF express vimentin, S-100, GFAP and CD90. MPNF are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand for 5 population doublings in Fibroblast Growth Medium (Cat# MD-0011) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Postnatal day 8 C57BL/6 mouse sciatic nerve
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Fibroblast Growth Medium (Cat# MD-0011)

References

- [1] Salzer JL. (1999) Creating barriers: a new role for Schwann cells and desert hedgehog. *Neuron*. 22: 627-9.
 [2] Erlandson RA. (1991) The enigmatic perineurial cell and its participation in tumors and in tumor like entities. *Ultrastruct Pathol*. 15: 335-51.
 [3] Ariza A, Bilbao JM, Rosai J. (1988) Immunohistochemical detection of epithelial membrane antigen in normal and perineurial cells and perineurioma. *Am J Surg Pathol*. 12: 678-83.

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