Product Description

Smooth muscle cells (SMC) are primary contributors to the development of arterial disease [1]. The ability of vascular SMC to switch to a proliferative phenotype is one of the main factors in the development and progression of vascular disease. Pulmonary artery smooth muscle cells (PASMC) express VEGF and FGF-2 and are subjected to mechanical forces during pulsatile blood flow [2]. Chronic lung hypoxia causes vascular remodeling with PASMC hyperplasia, and results in pulmonary hypertension [3]. Cultured PASMC play an important role in vascular disease research and can be used to identify new therapeutic targets to treat pulmonary vascular disease.

iXCells Biotechnologies provides high quality Human Pulmonary Artery Smooth Muscle Cells (HPASMC), which are isolated from human pulmonary arteries and cryopreserved at P1, with >0.5 million cells in each vial. HPASMC express ±-smooth muscle actin and desmin and are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fung. HPASMC can further expand for 12 population doublings in Smooth Muscle Cell Growth Medium (Cat # MD-0034) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Human pulmonary arteries
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Smooth Muscle Cell Growth Medium (Cat # MD-0034)

References

[1] Schwartz, S. M., Campbell, G. R., Campbell, J. H. (1986) Replication of smooth muscle cells in vascular disease. Circ. Res. 58:427-444.
[2] Fan, Q. I., Vanderpool, K., Marsh, J. D. (2002) A 27 bp cis-acting sequence is essential for L-type calcium channel alpha(1C) subunit expression in vascular smooth muscle cells. Biochim Biophys Acta. 1577:401-11.
[3] Braun, M., Pietsch, P., Schror, K., Baumann, G., Felix, S. B. (1999) Cellular adhesion molecules on vascular smooth muscle cells. Cardiovasc. Res. 41:395-401.
[4] Quinn, T. P., Schlueter, M., Soifer, S. J., Gutierrez, J. A. (2002) Cyclic mechanical stretch induces VEGF and FGF-2 Expression in pulmonary vascular smooth muscle cells. Am. J. Physiol. Lung Cell Mol. Physiol. 282:L897-903.
[5] Rose, F., et al. (2002) Hypoxic pulmonary artery fibroblasts trigger proliferation of vascular smooth muscle cells: role of hypoxia-inducible transcription factors. FASEB J. 12:1660-1.

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