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Rat Aortic Smooth Muscle Cells: RAOSMC

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MSDS Cryopreserved Cells

Cell Apps Flyer Smooth Muscle Cells

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Cell Apps Poster Primary Cells

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Description

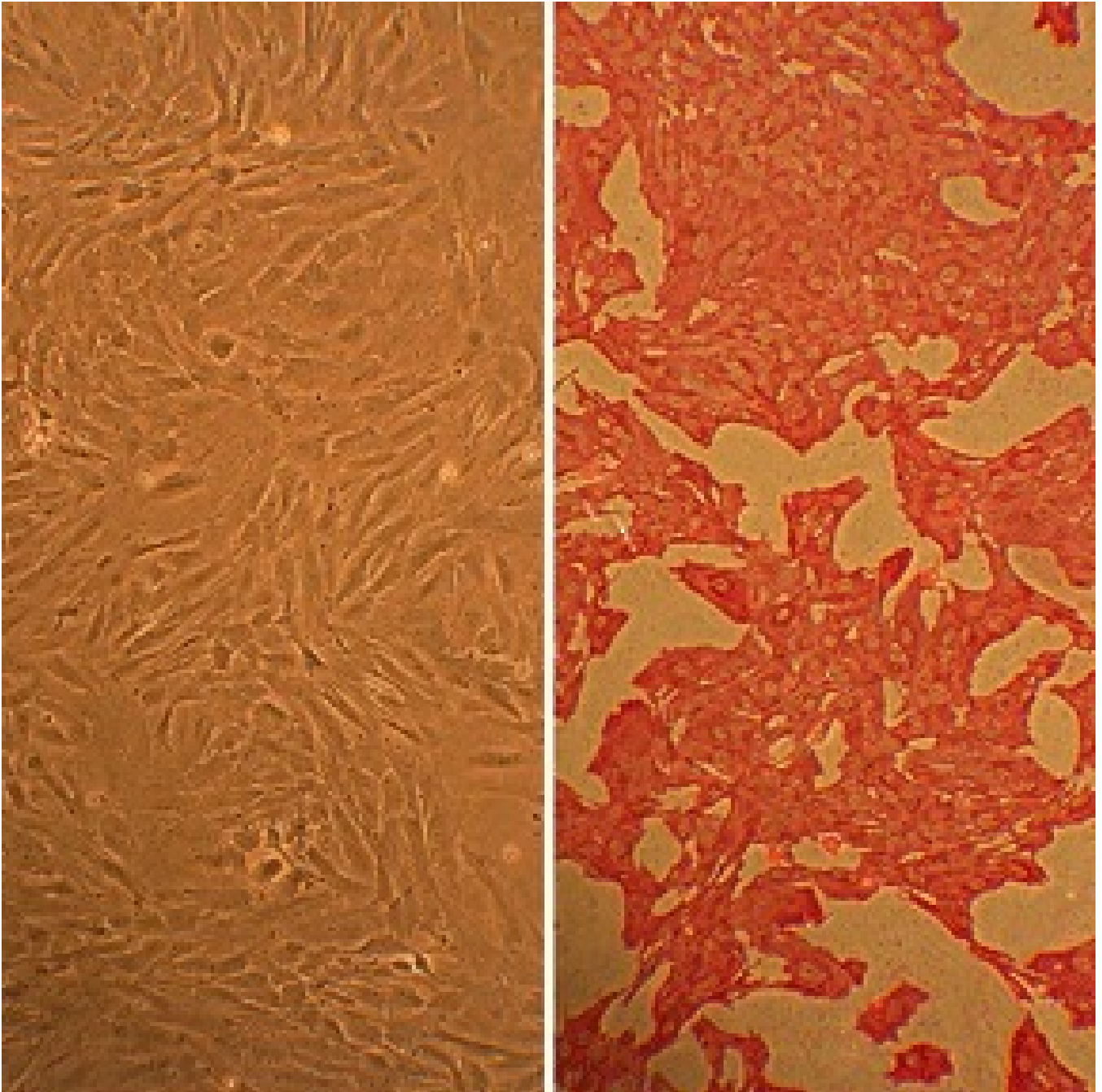
Rat Aortic Smooth Muscle Cells (RAOSMC) provide an excellent model system to study all aspects of cardiovascular function and disease, especially those related to mechanisms of hyperplasia and hypertrophy of intimal smooth muscle cells leading to vascular occlusion in atherosclerosis and stent restenosis.

RAOSMC from Cell Applications, Inc. have been utilized in dozens of research studies to:

- Provide a gold standard control for smooth muscle markers α -SMA, calponin and caldesmon expression
- Elucidate cytokines and growth factors signaling pathways implicated in the molecular regulation of smooth muscle cell proliferation, migration, and overall vascular function
- Demonstrate that peach extract inhibits intracellular Ca^{2+} and reactive oxygen species, showing promise to prevent cardiovascular diseases
- Investigate extracellular matrix properties and its role in cardiovascular health, repair of damaged vasculature and successful tissue engineering
- Demonstrate that hyperglycemia-induced elastin degradation products lead to vascular smooth muscle cell calcification
- Identify periostin, also implicated in mechanical stress and inflammation responses, as an early marker for SMC calcification

- Develop advanced stent technology, including novel surface materials, and drug delivery systems to prevent restenosis and other occlusive vasculopathies

Characterization: positive for smooth muscle cell specific alpha-actin expression



[1]
(Click to Enlarge) **Rat Aortic Smooth Muscle Cells:** RAOSMC (L), immunolabeled for smooth muscle-specific alpha-actin using the ABC method (R).

Details

Tissue	Normal healthy adult rat aorta
QC	No bacteria, yeast, fungi, mycoplasma
Character	Smooth muscle specific α -actin positive
Bioassay	Attach, spread, proliferate in Growth Med

Cryovial	500,000 RAOSMC (2nd passage) frozen in Basal Medium w/ 10% FBS, 10% DMSO
Kit	Cryovial frozen RAOSMC (R354-05a), Grwth Med (R311-500), Subcltr Rgnt Kit (090K)
Proliferating	Shipped in Gr Med, 3rd psg (flasks or plates)
Doublings	At least 16
Applications	Laboratory research use only (RUO). Not for human, clinical, diagnostic or veterinary use.

Instructions RAOSMC

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