Human Primary Lung Endothelial Cells in Culture

Suzy A.A Comhair, Weiling Xu, Lori Mavrakis, Micheala A. Aldred, Kewal Asosingh and Serpil C. Erzurum

ONLINE DATA SUPPLEMENT

Real Time Movie of In Vitro Tube Formation

In vitro tube formation was assessed using a Matrigel endothelial cell tube formation assay (Chemicon International, Chemicon International, Temecula, CA) (Yahata, Shirakata et al. 2003). Matrigel, a solid gel of basement membrane proteins, prepared from Engelbreth-Holm-Swarm mouse tumor was added to 6 well plate and allowed to gel for >1 h at 37C. PAEC were seeded on the surface plates at 18 x 104 cells/well. Angiogenesis was observed by phase contrast microscopy and documented by collecting digital images over time (0 to 8 h). The time course of angiogenesis was evaluated by collecting and quantitating time-lapse movies of cells, using a live-cell imaging system and Metamorph software (Universal Imaging, Downingtown, PA).