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ENDOTHELIAL CELL CHARACTERIZATION KIT

CATALOG NUMBER: SCR023

LOT NUMBER:

QUANTITY: One kit containing the following components:

50 μg of Endothelial Cell (CD146) monoclonal (Part No. 2003789)
50 μg of CD31 monoclonal (Part No. 2003788)
10 μg of von Willibrand Factor (vWF) polyclonal (Part No. 2003787)
50 μg of VCAM-1 monoclonal (Part No. MAB2511-50UG)
50 μg of ICAM-1 monoclonal (Part No. 2003785)
100 μg of Mouse control IgG (Part No. PP54-100UG)
100 μg of Rabbit control IgG (Part No. PP64-100UG)

DESCRIPTION: Antibodies for the immunocytochemical characterization of endothelial cells.

BACKGROUND: Endothelial cells form the inner lining of blood vessels and serve as the cellular interface between the circulating blood and the vessel wall. Endothelial cells are involved in many aspects of vascular biology, including inflammation, angiogenesis, atherosclerosis, blood clotting, vasoconstriction and vasodilation. Chemicon's endothelial cell characterization kit enables researchers to characterize cultured endothelial cells in both a constitutive and activated state using basic immunocytochemistry techniques.

Endothelial cells express the following markers constitutively. For optimal results, the following antibody dilutions are recommended for immunocytochemistry:

Mouse anti-Endothelial Cell (CD146): 1/500 dilution based on 1 mg/mL, final 2 ng/mL
Rabbit anti-VWF: 1/5000 dilution based on 1 mg/mL, final 0.2 ng/mL
Mouse anti-CD31: 1/50 dilution based on 0.1 mg/mL, final 20 ng/mL

The following antibodies have been shown to stain cultured HUVEC after 4-6hr of TNF-alpha (100ng/ml) induction at the following dilutions:

Mouse anti-ICAM-1: 1/500 dilution based on 1 mg/mL, final 2 ng/mL
Mouse anti-VCAM-1: 1/500 dilution based on 1 mg/mL, final 2 ng/Ml

STORAGE/HANDLING: Antibodies to ICAM-1, VCAM-1, von Willibrand Factor (vWF), and Endothelial Cells (CD146) are to be stored at 2 – 8°C (SCR023 – Part 1). Antibodies to CD31, Mouse IgG, and Rabbit IgG are to be stored at –20°C (SCR023 – Part 2).

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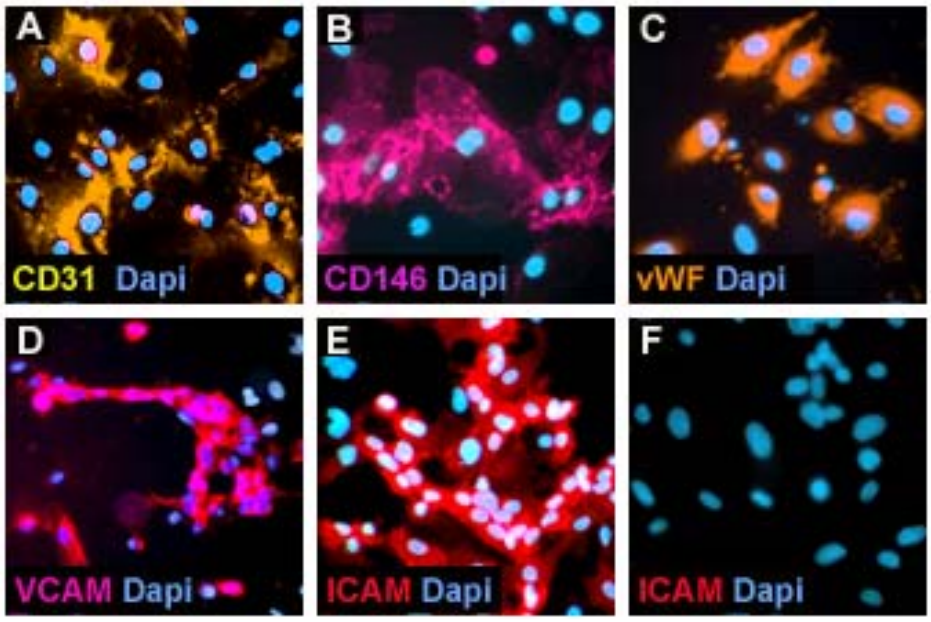
IMMUNOFLUORESCENT IMAGES OF ANTIBODY COMPONENTS IN ENDOTHELIAL CELL CHARACTERIZATION KIT (SCR023)



Cultured human umbilical vein endothelial cells (HUVEC) stained for constitutive markers, CD31 (**A**, yellow), Endothelial Cells (CD146) (**B**, pink) and von Willibrand Factor (vWF) (**C**, orange). Exposure of HUVEC to tumor necrosis factor-alpha (TNF-alpha, 100 ng/mL) for 4-6 hours resulted in upregulation of VCAM-1 (**D**, pink) and ICAM-1 (**E**, red) expressions. Control cultures of uninduced HUVEC indicate an absence of ICAM-1 (**F**) and VCAM-1 (not shown) staining. Nuclei of the cells were visualized with DAPI (blue).

*For color images, please go to www.chemicon.com

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28820 Single Oak Drive • Temecula, CA 92590
Technical Support: T: 1-800-MILLIPORE (1-800-645-5476) • F: 1-800-437-7502
www.millipore.com