CELL APPLICATIONS, INC.

CD31 Monoclonal Antibody

Cat. No. CB13678

Applications:	**WB, IP, IHC, IF, FACS**
Detected MW:	**130 kDa**
Species & Reactivity:	**human**
Isotype:	**Mouse IgG1**

BACKGROUND

CD31, a member of the immunoglobulin superfamily, is a 130 kDa transmembrane glycoprotein also designated as PECAM-1 (platelet endothelial cell adhesion molecule).[1] CD-31 is normally found on endothelial cells (EC), platelets, macrophages and Kupffer cells, granulocytes, T / NK cells, lymphocytes, megakaryocytes, fibroblasts, osteoclasts, neutrophils[1]. It plays a major role in the adhesion cascade between EC and the inflammatory cells during inflammation by facilitating leukocyte migration, and communication between EC during angiogenesis.[2,3] It has recently been recognized for its angiogenic role. It is one of the best markers for benign and malignant vascular tumors, but also stains plasma cells, monocytes, and megakaryocytes.[4]

References:

1. Newman PJ, et al.: Science 247: 1219, 1990.
2. Kalinowska A & Losy J: Eur. J. Neurol. 13:1284, 2007.
3. Stockinger H et al.: J. Immunol. 145:3889, 1991.
4. Tang DG et al.: J. Biol. Chem. 268:22883, 1993.

TECHNICAL INFORMATION

Source:
Anti-CD31 is a mouse monoclonal IgG1 raised against *E. coli*-expressed recombinant human CD31 cytoplasmic protein fragments.

Specificity and Sensitivity:
This antibody specifically detects endogenous levels of human CD31/PECAM-1 proteins (130 kD by Western Blot). This antibody does not cross-react with other endothelial proteins.

Storage Buffer: PBS and 30% glycerol

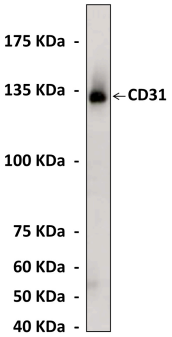
Storage:
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

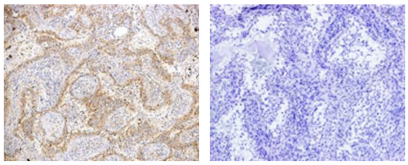
APPLICATIONS

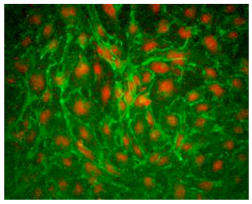
Application:	*Dilution:
WB	1:1000
IP	n/d
IHC (Paraffin)	n/d
IF	n/d
FACS	n/d

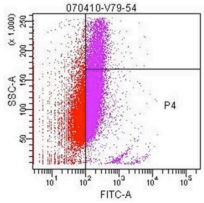
*****Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA









Top: Specific detection of CD31/PECAM-1 proteins from HUVEC by Western Blot analysis using CD31/PECAM-1 mouse monclonal Antibody. **Middle, upper:** Immunohistochemical staining of human spleen capillary hemangioma tissue using CD31 mouse monoclonal antibody (left) or Anti-CD31 mouse monoclonal antibody pre-incubated with HUVEC lysates (right). **Middle, lower:** Human Coronary Artery Endothelial Cells (Cat#300-05a) stained using Anti-CD31 (1:100). **Bottom:** FACS analysis of HUVEC cells using CD31/PECAM-1 mouse monoclonal antibody versus control mouse IgG.