



Anti-Human CD31 (#WM-59)

20140701BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

| | |
|-------------------|----------------------------|
| Cat.-no.: | 101-M92 |
| Size: | 50 µg |
| Lot. No.: | According to product label |
| Country of origin | Germany |

Preparation: CD31 is a glycoprotein expressed on endothelial cells and in platelets. It is known to be involved in cell signalling and cell adhesion. The anti-human CD31 antibody (#WM-59, IgG1) was purified from ascites.

Target Background

| | |
|---------------------------|------------------|
| Synonyms (Target): | PECAM-1, EndoCAM |
|---------------------------|------------------|

PECAM is transmembrane glycoprotein that belongs to the Ig-related superfamily of adhesion molecules. It is highly expressed at endothelial cell junctions, and also expressed in platelets and in most leukocyte sub-types. The primary function of PECAM-1 is the mediation of leukocyte-endothelial cell adhesion and signal transduction. PECAM-1 has been implicated in the pathogenesis of various inflammation related disorders, including thrombosis, multiple sclerosis (MS), and rheumatoid arthritis. The human PECAM-1 gene codes for a 738 amino acid transmembrane glycoprotein containing a 118 amino acid cytoplasmic domain, a 19 amino acid transmembrane domain, and a 574 amino acid extracellular domain.

References

1. Privratsky JR and Newman PJ, Cell Tissue Res 2014
2. Tsuneki M and Madri JA, J Biol Chem 2014
3. Donmez A et al, Transfus Apher Sci 2013; 49:307-12
4. Marelli-Berg FM et al, J Cell Sci 2013; 126:2343-52
5. Conway DE et al, Curr Biol 2013; 23:1024-30
6. Albelda SM et al, J Cell Biol 1990; 110:1227-37
7. Simmons DL et al, Exp Med 1990; 171:2147-52
8. Albelda SM et al, J Cell Biol 1991; 114:1059-68
9. Metzelaar MJ et al, Thromb Haemost 1991; 66:700-7

Database References Target

| | |
|------------------------|-------------|
| Protein RefSeq: | NP_000433.4 |
| Uniprot ID: | P16284 |
| mRNA RefSeq: | NM_000442.4 |

Product Specifications

| | |
|------------------------------|-----------------------------------|
| Host | Mouse |
| Reactivity against | Human |
| Clonality | Monoclonal Antibody |
| Clone/ Isotype | #WM-59, IgG ₁ kappa |
| Purification | Protein-G affinity chromatography |
| Immunogen | recombinant human CD31 |
| Formulation | lyophilized |
| Reconstitution buffer | water |

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8 °C. Frozen aliquots are stable for at least 6 months when stored at -20 °C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

| | |
|-----------------------|-------------------|
| FACS Analysis: | Use at 1-5 µg/ml |
| IF (on cells): | Use at 0.5-5µg/ml |
| IHC (frozen section): | Use at 1-10 µg/ml |

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Application/Handling

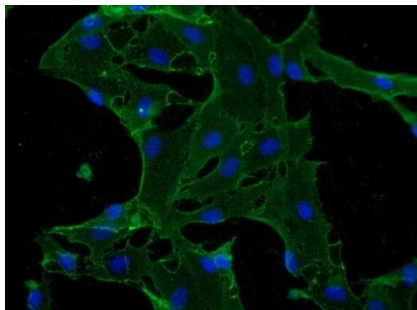


Figure 1: Immunofluorescence staining (green) of CD31 in primary human umbilical vein endothelial cells (HUVEC) with anti-human CD31 (1µg/ml) [Cat# 101-M92] and counter staining of nuclei with Dapi. As secondary antibody goat anti-mouse ALEXA Flour 488 (Dianova) was used 1:800.

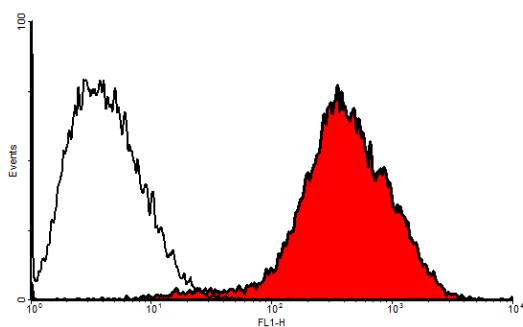


Figure 2. FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).