Anti-CD31 Antibody

ER31219

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 83 kDa

Description: PECAM-1 is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions. The encoded protein is a member of the immunoglobulin superfamily and is likely involved in leukocyte transmigration, angiogenesis, and integrin activation. CD31 is also expressed in certain tumors, including epithelioid hemangioendothelioma, epithelioid sarcoma-like hemangioendothelioma, other vascular tumors, histiocytic malignancies, and plasmacytomas. It is rarely found in some sarcomas, such as Kaposi's sarcoma and carcinomas. In immunohistochemistry, CD31 is used primarily to demonstrate the presence of endothelial cells in histological tissue sections. This can help to evaluate the degree of tumour angiogenesis, which can imply a rapidly growing tumor

Immunogen: Synthetic peptide within C-terminal residues of CD31.

Positive control: THP-1 cell lysate, Hela, HUVEC, NIH/3T3, SW480, Jurkat, human kidney tissue

Subcellular location: Cell membrane, Cell junction.

Database links: SwissProt: P16284 Human | Q08481 Mouse

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:200
FC	1:100-1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

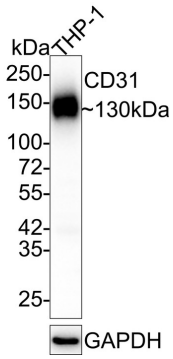

Fig1: Western blot analysis of CD31 on THP-1 cell lysates with Rabbit anti-CD31 antibody (ER31219) at 1/2,000 dilution.

Lysates/proteins at 15 µg/Lane.

Predicted band size: 83 kDa
Observed band size: 130 kDa

Exposure time: 20 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER31219) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:50,000 dilution was used for 1 hour at room temperature.

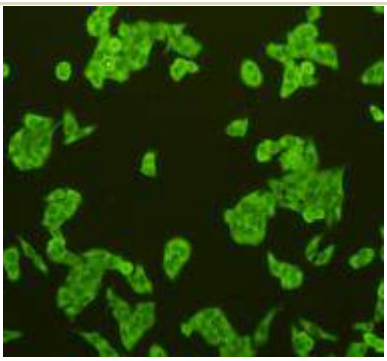

Fig2: ICC staining CD31 in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

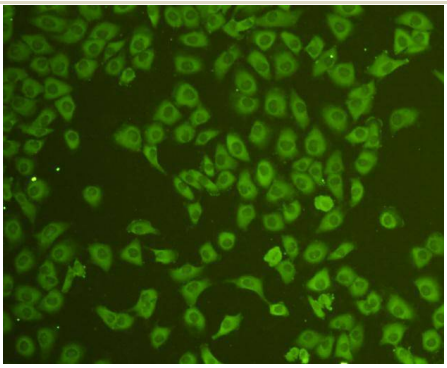

Fig3: ICC staining CD31 in HUVEC cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

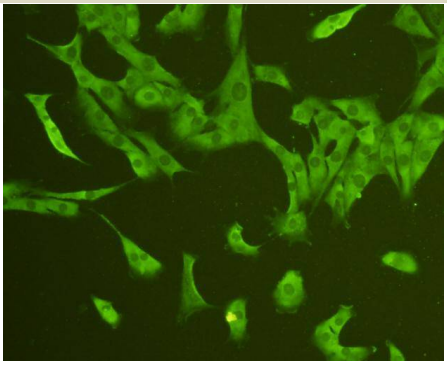

Fig4: ICC staining CD31 in NIH/3T3 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

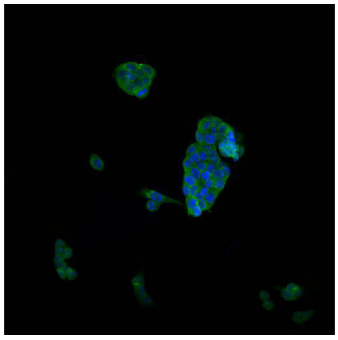

Fig5: ICC staining CD31 in SW480 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

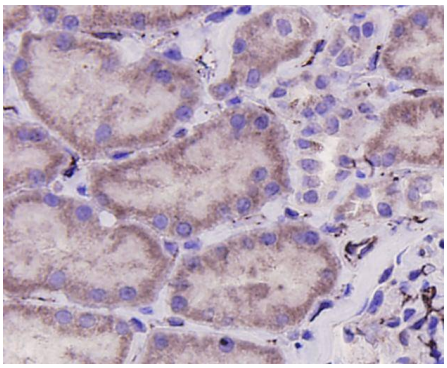

Fig6: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-CD31 antibody. Counter stained with hematoxylin.

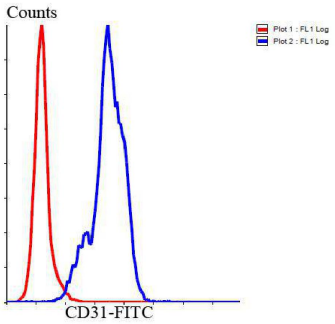

Fig7: Flow cytometric analysis of Jurkat cells with CD31 antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti rabbit IgG (FITC) was used as the secondary antibody.

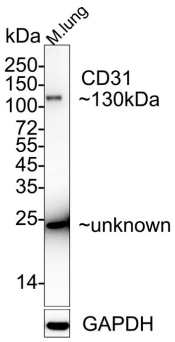

Fig8: "Western blot analysis of CD31 on mouse lung tissue lysates with Rabbit anti-CD31 antibody (ER31219) at 1/1,000 dilution.

Lysates/proteins at 40 µg/Lane.

Predicted band size: 130 kDa
Observed band size: 130 kDa

Exposure time: 2 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER31219) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature."

Background References

1. Brown S et al. Apoptosis disables CD31-mediated cell detachment from phagocytes promoting binding and engulfment. Nature 418:200-203 (2002).
2. Sardjono C T et al. Palmitoylation at Cys595 is essential for PECAM-1 localisation into membrane microdomains and for efficient PECAM-1-mediated cytoprotection.Thromb Haemost 96(6):756-66 (2006).
3. Yeh J C et al. Regulation of G protein-coupled receptor activities by the platelet-endothelial cell adhesion molecule, PECAM-1. Biochemistry