Anti-CD31 Antibody [SU03-59] - BSA and Azide free

HA750151

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, FC, IP, IF-Cell, IF-Tissue
Molecular Wt:	Predicted band size: 83 kDa
Clone number:	SU03-59

Description: PECAM-1 is a cell-cell adhesion protein which interacts with other PECAM-1 molecules through homophilic interactions or with non-PECAM-1 molecules through heterophilic interactions. Homophilic interactions between PECAM-1 molecules are mediated by antiparallel interactions between extracellular Ig-like domain 1 and Ig-like domain 2. These interactions are regulated by the level of PECAM-1 expression. Homophilic interactions occur, only when the surface expression of PECAM-1 is high. Otherwise, when expression is low, heterophilic interactions occur.

Immunogen: Synthetic peptide within Human CD31 aa 689-738 / 738.

Positive control: THP-1 cell lysate, human tonsil tissue, THP-1.

Subcellular location: Cell junction. Cell membrane. Membrane.

Database links: SwissProt: P16284 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IHC-P	1:50-1:1,000
FC	1:50-1:100
IP	1-2μg/sample
IF-Cell	1:100
IF-Tissue	1:200

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

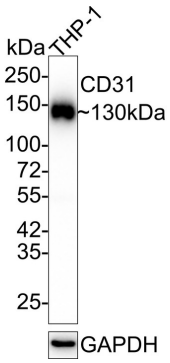

Fig1: Western blot analysis of CD31 on THP-1 cell lysates with Rabbit anti-CD31 antibody (HA750151) at 1/2,000 dilution.

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 (HA750151) 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.

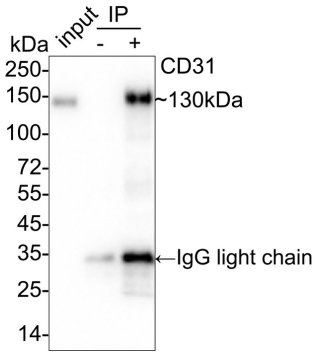

Fig2: CD31 was immunoprecipitated in 0.2mg THP-1 cell lysate with HA750151 at 2 µg/25 µl agarose. Western blot was performed from the immunoprecipitate using HA750151 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: THP-1 cell lysate (input)
Lane 2: Rabbit IgG instead of HA750151 in THP-1 cell lysate
Lane 3: HA750151 IP in THP-1 cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 5 seconds

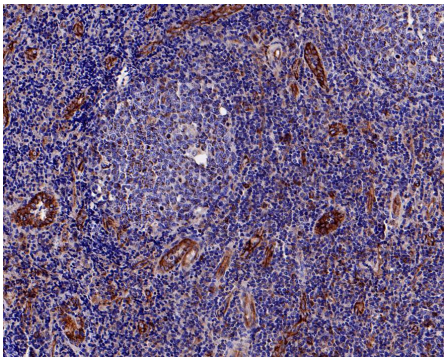

Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD31 antibody (HA750151) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750151) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

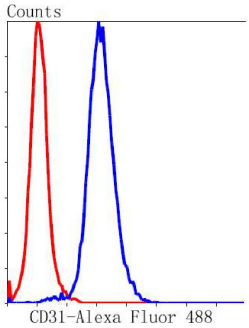

Fig4: Flow cytometric analysis of CD31 was done on THP-1 cells. The cells were fixed, permeabilized and stained with the primary antibody (HA750151, 1/50) (blue). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1,000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; red).

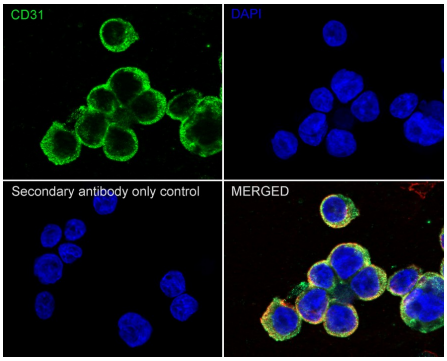

Fig5: Immunocytochemistry analysis of THP-1 cells labeling CD31 with Rabbit anti-CD31 antibody (HA750151) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CD31 antibody (HA750151) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

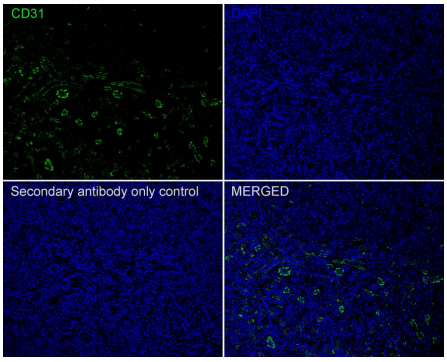

Fig6: Immunofluorescence analysis of paraffin-embedded human tonsil tissue labeling CD31 with Rabbit anti-CD31 antibody (HA750151) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750151, green) at 1/200 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Background References

1. Doi H et al. Potency of umbilical cord blood- and Wharton's jelly-derived mesenchymal stem cells for scarless wound healing. Sci Rep 6:18844 (2016).
2. Yang Y et al. The Increased Expression of Connexin and VEGF in Mouse Ovarian Tissue Vitrification by Follicle Stimulating Hormone. Biomed Res Int 2015:397264 (2015).