

## Anti-CD31 Antibody (90943)

### Product Details

Ig Type:	IgG2a
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	90943
Purification:	Protein G purified

### Applications

#### 1. Western Blot

- Positive WB detected in: Jurkat whole cell lysate, THP-1 whole cell lysate, Raji whole cell lysate
- All lanes: CD31 antibody at 2.5µg/ml
- Secondary: Goat polyclonal to Mouse IgG at 1/50000 dilution
- Predicted band size: 83, 81, 80, 82 kDa
- Observed band size: 130 kDa

2. IHC image of TMAH-00188 diluted at 1:100 and staining in paraffin-embedded human tonsil tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

3. IHC image of TMAH-00188 diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

#### Verified Activity:

4. IHC image of TMAH-00188 diluted at 1:100 and staining in paraffin-embedded human spleen tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

5. IHC image of TMAH-00188 diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

6. IHC image of TMAH-00188 diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

7. Immunofluorescence staining of Hela cells with TMAH-00188 at 1:100, counter-stained with DAPI. The cells were blocked in 10% normal Goat Serum and then incubated with the primary antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).

8. Immunofluorescence staining of THP-1 cells with TMAH-00188 at 1:100, counter-stained with DAPI. The cells were blocked in 10% normal Goat Serum and then incubated with the primary antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).

9. Overlay histogram showing THP-1 cells stained with TMAH-00188 (red line) at 1:250. The cells were incubated in 1x PBS /10% normal goat serum to block non-specific protein-protein interactions followed by primary antibody for 1 h at 4°C. The secondary antibody used was FITC goat anti-mouse IgG(H+L) at 1/200 dilution for 1 h at 4°C. Isotype control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

10. Overlay histogram showing HL-60 cells stained with TMAH-00188 (red line) at 1:250. The cells were incubated in 1x PBS /10% normal goat serum to block non-specific protein-protein interactions followed by primary antibody for 1 h at 4°C. The secondary antibody used was FITC goat anti-mouse IgG(H+L) at 1/200 dilution for 1 h at 4°C. Isotype control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

Application: ELISA, WB, IHC, IF, FCM

### Properties

Purity: >95%

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein: Human CD31 Protein (28-315AA)

Antigen Species: Human

Gene ID: 5175

Uniprot ID: P16284

Synonyms: FLJ34100;PECA1;FLJ58394;PECAM-1;CD31;GPIIA';EndoCAM

Biology Area: Cancer

### Research Background

Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions. Tyr-690 plays a critical role in TEM and is required for efficient trafficking of PECAM1 to and from the lateral border recycling compartment (LBRC) and is also essential for the LBRC membrane to be targeted around migrating leukocytes. Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions. Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils. Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal. Promotes macrophage-mediated phagocytosis of apoptotic leukocytes by tethering them to the phagocytic cells; PECAM1-mediated detachment signal appears to be disabled in apoptotic leukocytes. Modulates bradykinin receptor BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in endothelial cells. Induces susceptibility to atherosclerosis. Does not protect against apoptosis.

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