

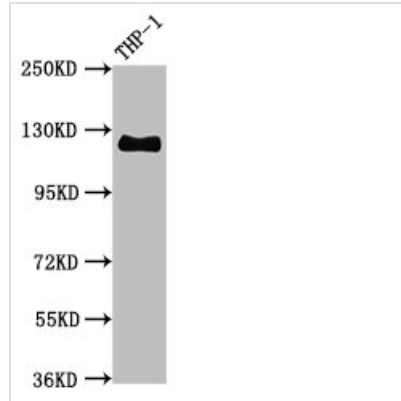


CD31 Recombinant Monoclonal Antibody

| | |
|----------------------------|--|
| Product Code | CSB-RA017767A0HU |
| Abbreviation | Platelet endothelial cell adhesion molecule |
| Storage | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| Uniprot No. | P16284 |
| Immunogen | A synthesized peptide |
| Species Reactivity | Human |
| Tested Applications | ELISA, WB, IHC, FC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:500 |
| Relevance | <p>Induces susceptibility to atherosclerosis (By similarity). 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. Prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes (the encounter of a viable cell with a phagocyte via the homophilic interaction of PECAM1 on both cell surfaces leads to the viable cell's active repulsion from the phagocyte. During apoptosis, the inside-out signaling of PECAM1 is somehow disabled so that the apoptotic cell does not actively reject the phagocyte anymore. The lack of this repulsion signal together with the interaction of the eat-me signals and their respective receptors causes the attachment of the apoptotic cell to the phagocyte, thus triggering the process of engulfment). Isoform Delta15 is unable to protect against apoptosis. Modulates BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in human umbilical cord vein cells (HUVEC).</p> |
| Form | Liquid |
| Conjugate | Non-conjugated |
| Storage Buffer | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Purification Method | Affinity-chromatography |
| Isotype | Rabbit IgG |
| Clonality | Monoclonal |
| Alias | Platelet endothelial cell adhesion molecule, PECAM-1, EndoCAM, GPIIA', PECA1, CD31, PECAM1 |
| Immunogen Species | Homo sapiens (Human) |
| Research Area | Cardiovascular |
| Gene Names | PECAM1 |


Clone No.

7B7

Image

Western Blot

Positive WB detected in THP-1 whole cell lysate

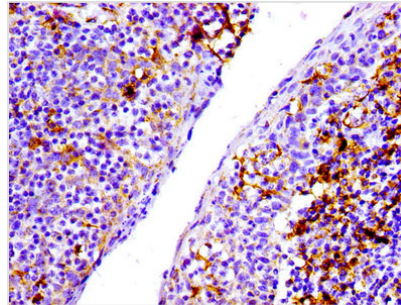
All lanes CD31 antibody at 0.95µg/ml

Secondary

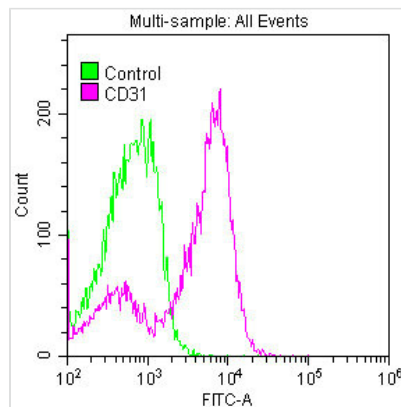
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 125 KDa

Observed band size: 125 KDa



IHC image of CSB-RA017767A0HU 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.



Overlay histogram showing Jurkat cells stained with CSB-RA017767A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then permeabilized with 0.3% Triton X-100 for 2 min. The cells were then 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-rabbit IgG (H+L) at 1/200 dilution for 1 h at 4°C. Control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

Description

CUSABIO cloned the DNA sequence encoding the CD31 monoclonal antibody into the plasmid and then transfected into the cell line for expression. The product was purified through the affinity-chromatography method and then got the recombinant CD31 monoclonal antibody. It belongs to the rabbit IgG. This CD31 antibody is recommended to detect human CD31 protein in ELISA, WB, IHC, and FC applications.

CD31, also known as PECAM1, plays a crucial role in endothelial cell tight junctions, leukocyte trafficking, and immunological response through its homophilic and heterophilic binding patterns. It also has a role in vasculogenesis and angiogenesis, as well as being a key mediator of transendothelial migration (TEM).