

For Research Use Only

# CD31 Monoclonal antibody

Catalog Number: 66065-2-Ig **37 Publications**



## Basic Information

|   |  |   |
|---|--|---|
| <b>Catalog Number:</b><br>66065-2-Ig        | <b>GenBank Accession Number:</b><br>BC022512                     | <b>Purification Method:</b><br>Protein A purification                                     |
| <b>Size:</b><br>1000 µg/ml                  | <b>GeneID (NCBI):</b><br>5175                                    | <b>CloneNo.:</b><br>3F8E2   |
| <b>Source:</b><br>Mouse                     | <b>ENSEMBL Gene ID:</b><br>ENSG00000261371                       | <b>Recommended Dilutions:</b><br>WB 1:5000-1:50000<br>IHC 1:5000-1:20000<br>IF 1:50-1:500 |
| <b>Isotype:</b><br>IgG1                     | <b>UNIPROT ID:</b><br>P16284                                     |   |
| <b>Immunogen Catalog Number:</b><br>AG19730 | <b>Full Name:</b><br>platelet/endothelial cell adhesion molecule |   |
|   | <b>Calculated MW:</b><br>83 kDa                                  |   |
|   | <b>Observed MW:</b><br>120-130 kDa                               |   |

## Applications

**Tested Applications:**  
FC, IF-P, IHC, WB, ELISA

**Cited Applications:**  
WB, IF, FC, IHC

**Species Specificity:**  
Human

**Cited Species:**  
human

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** human peripheral blood platelets, Jurkat cells, THP-1 cells

**IHC :** human liver cancer tissue, human breast cancer tissue, human tonsillitis tissue

**IF :** human placenta tissue, human liver cancer tissue

## Background Information

Platelet endothelial cell adhesion molecule-1 (PECAM-1, CD31) is a member of the immunoglobulin gene superfamily of cell adhesion molecules. CD31 is a transmembrane glycoprotein that is highly expressed on the surface of the endothelium, making up a large portion of its intracellular junctions. PECAM-1 is also present on the surface of hematopoietic cells and immune cells including platelets, monocytes, neutrophils, natural killer cells, megakaryocytes and some types of T-cell (PMID: 9011572). As well as its role in cell-cell adhesion, PECAM-1 functions as a signaling receptor, and is involved in important physiological events such as nitric oxide production, regulation of T-cell immunity and tolerance, leukocyte transendothelial migration and inflammation and angiogenesis (PMID: 21183735; 20978210; 17872453; 20634489).

## Notable Publications

| Author             | Pubmed ID | Journal                            | Application |
|--------------------|-----------|------------------------------------|-------------|
| Qianlei Zhao       | 36129348  | ACS Chem Neurosci                  | IF          |
| Folnetti A Alvarez | 36114323  | Breast Cancer Res Treat            | WB          |
| Jianjun Ma         | 36368650  | Biochim Biophys Acta Mol Basis Dis | IF          |

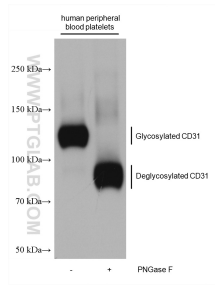
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

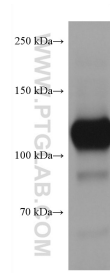
For technical support and original validation data for this product please contact:  
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

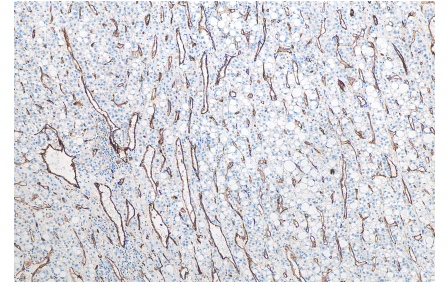
## Selected Validation Data



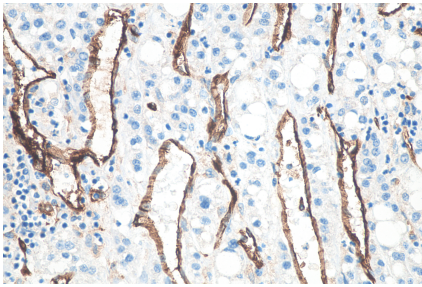
Untreated and PNGase F-treated lysates of human peripheral blood platelets were subjected to SDS PAGE followed by western blot with 66065-2-Ig (CD31 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



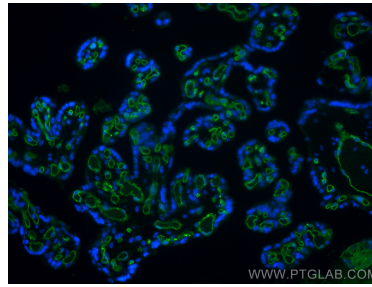
human peripheral blood platelets were subjected to SDS PAGE followed by western blot with 66065-2-Ig (CD31 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



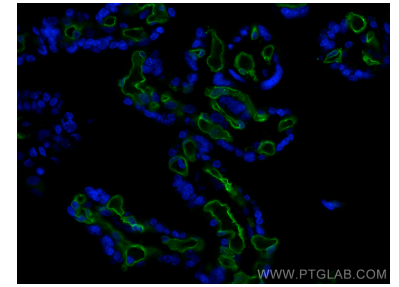
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66065-2-Ig (CD31 antibody) at dilution of 1:10000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



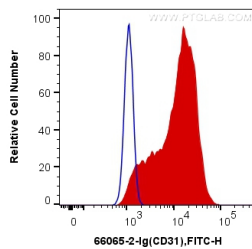
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66065-2-Ig (CD31 antibody) at dilution of 1:10000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



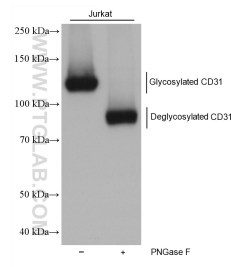
Immunofluorescent analysis of (4% PFA) fixed human placenta tissue using CD31 antibody (66065-2-Ig, Clone: 3F8E2) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed human placenta tissue using CD31 antibody (66065-2-Ig, Clone: 3F8E2) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1x10<sup>6</sup> THP-1 cells were surface stained with 0.4 ug Anti-Human CD31 (66065-2-Ig, Clone:3F8E2) and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were not fixed.



Untreated and PNGase F-treated lysates of Jurkat cells were subjected to SDS PAGE followed by western blot with 66065-2-Ig (CD31 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.