

### **Product datasheet for AM32851PU-S**

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## CD31 (PECAM1) Mouse Monoclonal Antibody [Clone ID: C31.7]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: C31.7

**Applications:** ELISA, FC, IF, IHC, IP, WB

**Recommended Dilution: ELISA** (For coating, Use Antibody without BSA).

Western blot: 0.5-1 µg/ml.

**Immunoprecipitation:** 1-2 μg/500 μg protein lysate.

**Flow Cytometry:** 0.5-1 µg/106 cells. **Immunofluorescence:** 0.5-1 µg/ml.

Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections: 1-2 µg/ml for 30

minutes at RT.

Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 1mM EDTA, pH 9.0, for

10-20 min followed by cooling at RT for 20 min.

Positive Control: Jurkat, CCRF-CEM or K-562 Cells. Tonsil, Angiosarcoma.

Reactivity: Human, Monkey, Rabbit

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

**Immunogen:** Human recombinant CD31 protein.

**Specificity:** This monoclonal *C31.7* antibody recognizes a 100kDa glycoprotein in endothelial cells and

130kDa in platelets.

This antibody reacts with endothelial cells in normal tissues and in benign and malignant

proliferations. In cryostat sections and blood smears the antibody also stains

megakaryocytes, platelets and occasionally plasma cells. It reacts weakly with mantle zone B

cells, peripheral T cells, and neutrophils.

Antibody to CD31 is of value in the study of benign and malignant vascular tumors.

Staining for CD31 has also been used to measure angiogenesis, which reportedly predicts

tumor recurrence.

Cellular Localization: Cell surface and cytoplasmic.





#### CD31 (PECAM1) Mouse Monoclonal Antibody [Clone ID: C31.7] - AM32851PU-S

Formulation: 10mM PBS

State: Purified

State: Liquid purified IgG fraction from Bioreactor Concentrate

Stabilizer: 0.05% BSA

Preservative: 0.05% Sodium Azide

**Concentration:** lot specific

**Purification:** Protein A/G Chromatography

Conjugation: Unconjugated

**Storage:** Store undiluted at 2-8°C.

**Stability:** Shelf life: one year from despatch.

Predicted Protein Size: ~100 kDa (endothelium) and ~130 kDa (platelets)

Gene Name: platelet and endothelial cell adhesion molecule 1

Database Link: Entrez Gene 5175 Human

P16284

Background: CD31 (PECAM-1, or platelet endothelial cell adhesion molecule-1) is a surface protein

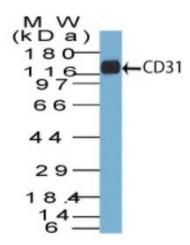
expressed by endothelial cells, monocytes, platelets, granulocytes, and lymphocyte subsets, and makes up a large portion of endothelial intercellular junctions. CD31 is a member of the immunoglobulin superfamily and is likely involved in leukocyte migration, angiogenesis, and integrin activation. Reports indicate that CD31 interacts with CD38 and is involved in cellular interactions resulting in wound healing and angiogenesis. Expression of CD31 on CD4+ T lymphocytes, helps to control T lymphocyte activation, because in the absence of CD31, T cells have a greater propensity to become activated, resulting in increased susceptibility to become apoptotic. This impact of CD31 loss becomes most pronounced during severe, inflammatory, and immunological stresses such as those caused by systemic Salmonella

infection. This identifies a novel role for CD31 in regulating CD4 T homeostasis.

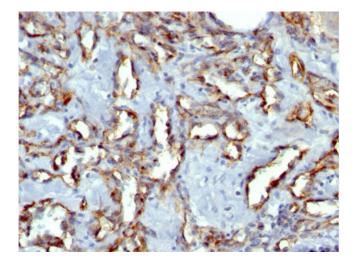
Synonyms: PECAM-1, EndoCAM, GPIIA'



# **Product images:**

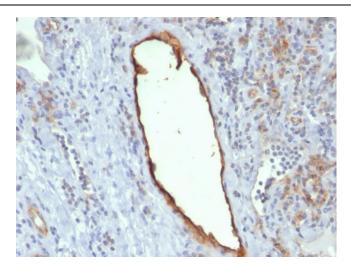


Western blot analysis of CD31 in THP-1 lysate probed with CD31 Antibody (Clone C31.7).



Formalin-Fixed, Paraffin-Embedded Human Angiosarcoma stained with CD31 Antibody (Clone C31.7).





Formalin-Fixed, Paraffin-Embedded Human tonsil stained with CD31 Antibody (Clone C31.7).