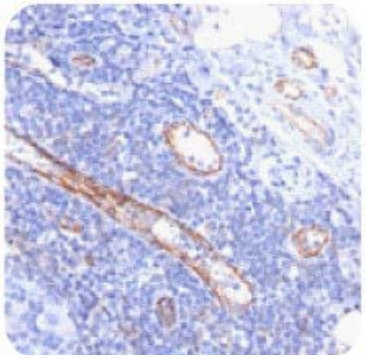
CD31, Clone C31.7 (Concentrate)

Description:

Species:	Mouse
Immunogen:	Membrane preparation of a spleen from a patient with hairy cell leukemia was used as immunogen for this antibody.
Clone:	C31.7
Isotype:	IgG1, Kappa
Concentration:	100µg/ml.
Format:	This antibody is provided in a phosphate buffered saline containing 1% BSA.
Specificity:	This 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.
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.
Species Reactivity:	Human.
Positive Control:	Tonsil
Cellular Localization:	Primarily membrane.
Titer/Working Dilution:	Immunohistochemistry: 1:50 – 1:100 Western Blot: 1-3 µg/ml
Microbiological State:	This product is not sterile.

Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile.



Procedure: We suggest an incubation period of 30-60 minutes at room temperature or overnight at 2-8 C. Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with citrate-based antigen retrieval. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user. For maximum staining intensity, we recommend using AviBond Ultra for detection and DAB Clarity Ultra products for visualization.

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

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2. Sciot R; Delaere P; Van Damme B; Desmet V. Histopathology, 26(2):177-180(1195).
3. Charpin C; Devictor B; Bergeret D; Andrac L; Boulat J; Horschowski N; Lavaut MN; Piana L. American Journal of Clinical Pathology, 103(4):443-448 (1995).
4. Bossi P; Viale G; Lee AK; Alfano R; Coggi G; Bosari S. Cancer Research, 55(21):5049-5053(1995).
5. Newton-Nash DK, Newman PJ. J Immunol, 163: 682-688 (1999).
6. Ross EA, Coughlan RE, Flores-Langarica A, et al. J Immunol. 187(4):1553-1565(2011).

Warranty:

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