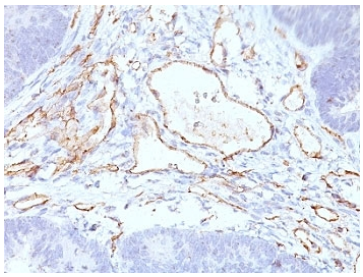
CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 / PECAM-1 Antibody Cocktail [clone C31.3 + C31.7 + C31.10] (V2784)

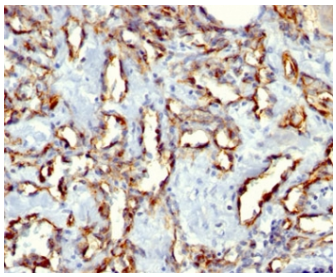
Catalog No.	Formulation	Size
V2784-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2784-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2784SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2784IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

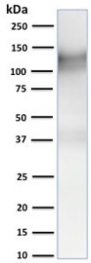
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	C31.3 + C31.7 + C31.10
Purity	Protein G affinity chromatography
UniProt	P16284
Localization	Cell surface and cytoplasm of endothelial cells
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 is available for research use only.



CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 staining of colon carcinoma vasculature by IHC. Immunohistochemistry of FFPE human colon carcinoma sections using the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10. Brown staining prominently highlights vascular endothelial structures within the tumor tissue, producing distinct vessel-associated labeling against the surrounding carcinoma. The staining pattern is consistent with the characteristic endothelial localization of CD31/PECAM1 and demonstrates vascular detection with this PECAM-1 Antibody Cocktail. Heat-induced epitope retrieval was performed in pH 9 Tris-EDTA before antibody incubation.



CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 staining of angiosarcoma by IHC. Immunohistochemistry of FFPE human angiosarcoma sections using the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10. Strong brown staining highlights the endothelial tumor cells and irregular vascular structures characteristic of this vascular neoplasm. The extensive labeling is consistent with the prominent expression of PECAM1 associated with endothelial differentiation. This result demonstrates detection of vascular structures with the PECAM-1 Antibody Cocktail. Heat-induced epitope retrieval was performed in pH 9 Tris-EDTA before antibody incubation.



CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 detection of PECAM1 in THP-1 cells by WB. Western blot testing of human THP-1 cell lysate with the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10. A predominant immunoreactive band is detected within the expected 83-130 kDa range for CD31/PECAM1. The relatively broad molecular weight range reflects the substantial glycosylation of mature PECAM1, which increases its apparent molecular weight relative to the underlying polypeptide. The observed signal demonstrates target recognition by this PECAM-1 Antibody Cocktail in human cell lysate.

Description

CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 / PECAM-1 Antibody Cocktail recognizes platelet endothelial cell adhesion molecule 1, a transmembrane glycoprotein encoded by the PECAM1 gene. Also known as CD31 or PECAM-1, this protein belongs to the immunoglobulin superfamily of cell adhesion molecules. PECAM1 contains six extracellular immunoglobulin-like domains, a single transmembrane region and a cytoplasmic signaling domain. The protein is prominently expressed by vascular endothelial cells and is also found on platelets, monocytes, neutrophils and subsets of lymphocytes. Its characteristic expression has established CD31 as an important marker for vascular and endothelial cell research.

PECAM-1 participates in homophilic interactions between adjacent endothelial cells and contributes to the organization and stability of endothelial junctions. Its cytoplasmic region contains immunoreceptor tyrosine-based inhibitory motifs that can undergo phosphorylation and recruit intracellular signaling proteins. These adhesive and signaling functions connect PECAM1 with regulation of vascular integrity, endothelial responses to mechanical forces and inflammatory signaling. The CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 combines three monoclonal clones directed against this biologically important endothelial protein.

CD31 also contributes to leukocyte transendothelial migration by participating in interactions that facilitate movement of immune cells across endothelial junctions. PECAM1 is additionally involved in endothelial migration, angiogenesis and vascular remodeling. These functions make the protein relevant to research involving cardiovascular biology, inflammation, vascular development, tissue repair and tumor angiogenesis. Because CD31 is strongly associated with endothelial cells, it is also widely studied as a marker for visualizing vascular architecture and investigating changes in blood vessel organization and density.

Combining clones C31.3, C31.7 and C31.10 provides a multi-clone approach to PECAM1 recognition while retaining the specificity associated with monoclonal antibody reagents. Clone C31.7 and clone C31.10 also have individual literature

histories, providing additional research context for components of this antibody mixture. NSJ Bioreagents provides this PECAM-1 Antibody Cocktail for researchers investigating endothelial biology and vascular organization. A CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 provides a multi-clone reagent for studying PECAM1 expression, vascular structures and endothelial cell biology.

For a Protein Microarray Validated monoclonal antibody with CD31 as the primary designation, see our CD31 Antibody PECAM1/3527 / PECAM-1 Monoclonal Antibody.

Application Notes

Optimal dilution of the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human recombinant protein was used as the immunogen for the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10.

Storage

Store the CD31 Antibody Cocktail C31.3 + C31.7 + C31.10 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

PECAM-1 antibody, PECAM1 antibody, CD31 antibody, Platelet Endothelial Cell Adhesion Molecule 1 antibody, EndoCAM antibody, PECA1 antibody, GPIIA antibody

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