ARG56119
anti-CD31 antibody [JC/70A]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [JC/70A] recognizes CD31
Tested Reactivity	Hu, Ms
Predict Reactivity	Rb
Species Does Not React With	Rat, Pig
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	JC/70A
Isotype	IgG1, kappa
Target Name	CD31
Species	Human
Immunogen	A membrane preparation of a spleen from a patient with hairy cell leukemia.
Conjugation	Un-conjugated
Alternate Names	EndoCAM; CD31/EndoCAM; PECAM-1; CD31; PECA1; CD antigen CD31; GPIIA'; endoCAM; Platelet endothelial cell adhesion molecule

Application Instructions

Predict Reactivity Note	Duo to the publication PMID: 35242369, this antibody might react to rabbit CD31.

Application table

Application	Dilution
FACS	1 - 2 µg/10^6 cells
ICC/IF	2 - 5 µg/ml
IHC-P	2 - 5 µg/ml
WB	1 - 2 µg/ml

Application Note	IHC-P: Antigen Retrieval: Boil tissue section in 10 mM Tris with 1 mM EDTA (pH 9.0) for 10-20 min, followed by cooling at RT for 20 min. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HUVEC
Observed Size	110 - 120 kDa

Properties

Form	Liquid

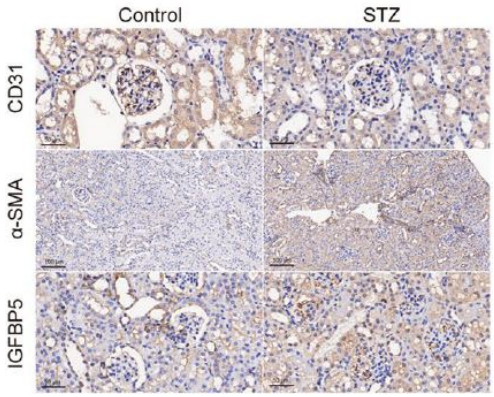
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.05% Sodium azide and 0.1 mg/ml BSA
Preservative	0.05% Sodium azide
Stabilizer	0.1 mg/ml BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 18613 Mouse GeneID: 5175 Human Swiss-port # P16284 Human Swiss-port # Q08481 Mouse
Gene Symbol	PECAM1
Gene Full Name	platelet/endothelial cell adhesion molecule 1
Background	CD31 protein is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions. The encoded protein is a member of the immunoglobulin superfamily and is likely involved in leukocyte migration, angiogenesis, and integrin activation. [provided by RefSeq, May 2010]
Function	CD31 is a cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions (PubMed:19342684, PubMed:17580308). 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 (PubMed:19342684). Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (PubMed:27958302). Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (PubMed:17580308). Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal (PubMed:12110892). Promotes macrophage-mediated phagocytosis of apoptotic leukocytes by tethering them to the phagocytic cells; PECAM1-mediated detachment signal appears to be disabled in apoptotic leukocytes (PubMed:12110892). Modulates bradykinin receptor BDKRB2 activation (PubMed:18672896). Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in endothelial cells (PubMed:18672896). Induces susceptibility to atherosclerosis. Isoform Delta15: Does not protect against apoptosis. [UniProt]
Highlight	Related products: CD31 antibodies; CD31 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: Besides tumor suppression, what's p53 busy for during embryogenesis?
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Controls and Markers antibody; Developmental Biology antibody; Signaling Transduction antibody; Endothelial Cell Marker antibody; Microvascular Density Study antibody
Calculated Mw	83 kDa
PTM	Phosphorylated on Ser and Tyr residues after cellular activation. Phosphorylated on tyrosine residues by FER and FES in response to FCER1 activation (By similarity). In endothelial cells Fyn mediates mechanical-force (stretch or pull) induced tyrosine phosphorylation. Palmitoylation by ZDHHC21 is necessary for cell surface expression in endothelial cells and enrichment in membrane rafts.

Cellular Localization	Cell surface and cytoplasm of endothelial cells

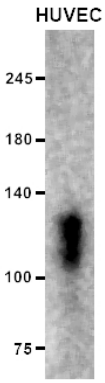
Images



ARG56119 anti-CD31 antibody [JC/70A] IHC-P image

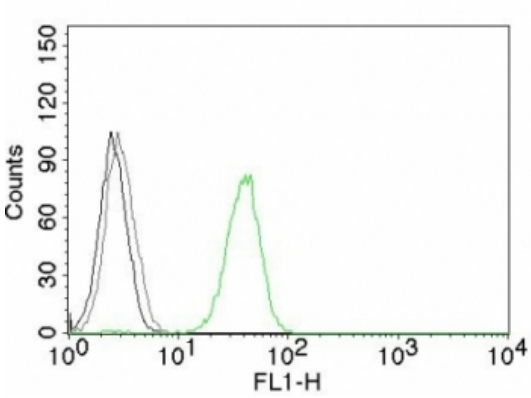
Immunohistochemistry: Mouse kidney stained with ARG56119 anti-CD31 antibody [JC/70A].

From Hu X et al. Cell Mol Life Sci (2025), doi: 10.1007/s00018-025-05718-5, Fig. 1D.



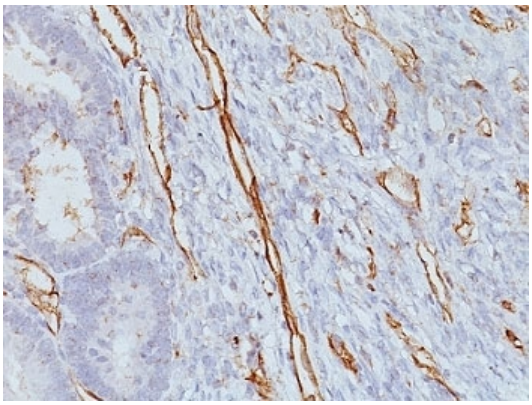
ARG56119 anti-CD31 antibody [JC/70A] WB image

Western blot: 10 µg of HUVEC cell lysate stained with ARG56119 anti-CD31 antibody [JC/70A] at 1:200 dilution.



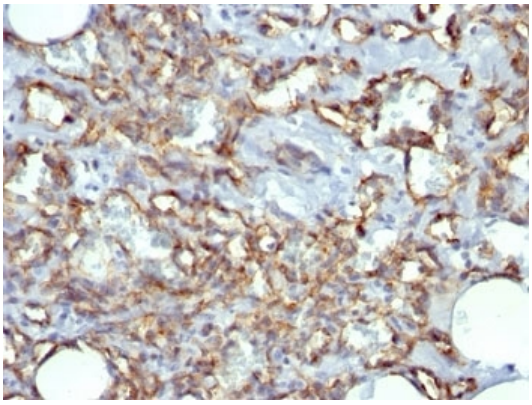
ARG56119 anti-CD31 antibody [JC/70A] FACS image

Flow Cytometry: Jurkat cells stained with AF488-conjugated ARG56119 anti-CD31 antibody [JC/70A] (green); Cells alone (black); Isotype control (grey).



ARG56119 anti-CD31 antibody [JC/70A] IHC-P image

Immunohistochemistry: Formalin-fixed, paraffin-embedded Human colon carcinoma stained with ARG56119 anti-CD31 antibody [JC/70A].



ARG56119 anti-CD31 antibody [JC/70A] IHC-P image

Immunohistochemistry: Formalin-fixed, paraffin-embedded Human angiosarcoma stained with ARG56119 anti-CD31 antibody [JC/70A].