ARG23409
anti-CD31 antibody [CO.3E1D4] (FITC)

Package: 50 µg
Store at: 4°C

Summary

Product Description	FITC-conjugated Mouse Monoclonal antibody [CO.3E1D4] recognizes CD31 Mouse anti Sheep CD31 antibody, clone CO.3E1D4 recognizes ovine CD31, also known as PECAM-1.Ovine CD31 is predominantly expressed by peripheral blood platelets and a small percentage of lymphocytes. CD31 is also highly expressed by ovine endothelial cells.Mouse anti Sheep CD31 antibody, clone CO.3E1D4 is reported to inhibit homotypic leucocyte aggregation induced by anti CD43 antibodies (Pintado et al. 1995).
Tested Reactivity	Bov, Goat, Sheep
Tested Application	FACS
Host	Mouse
Clonality	Monoclonal
Clone	CO.3E1D4
Isotype	IgG2a
Target Name	CD31
Species	Sheep
Immunogen	Ovine leucocytes
Conjugation	FITC
Alternate Names	EndoCAM; CD31/EndoCAM; PECAM-1; CD31; PECA1; CD antigen CD31; GPIIA'; endoCAM; Platelet endothelial cell adhesion molecule

Application Instructions

Application table

Application	Dilution
FACS	1:10 - 1:25

Application Note: FACS: Use 10 µl of the suggested working dilution to label 10^6 cells in 100 µl.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.09% Sodium azide and 1% BSA.
Preservative	0.09% Sodium azide
Stabilizer	1% BSA
Concentration	0.1 mg/ml
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. 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

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]
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. [UniProt]