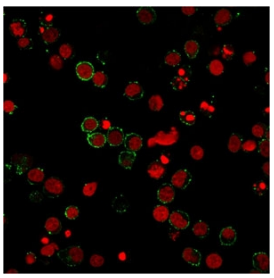
PECAM-1 Antibody 158-2B3 / CD31 Monoclonal Antibody [clone 158-2B3] (V2783)

Catalog No.	Formulation	Size
V2783-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2783-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2783SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

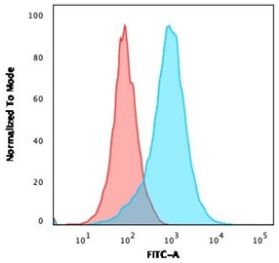
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Bulk quote request

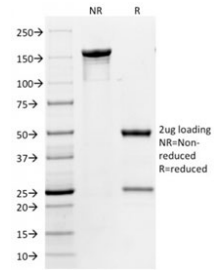
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	158-2B3
Purity	Protein G affinity chromatography
UniProt	P16284
Localization	Cell surface and cytoplasm of endothelial cells
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml
Limitations	This PECAM-1 Antibody 158-2B3 is available for research use only.



PECAM-1 Antibody 158-2B3 detection in Jurkat cells by IF. Immunofluorescence staining of PFA-fixed human Jurkat cells with PECAM-1 Antibody 158-2B3 is shown in green with RedDot nuclear counterstaining in red. Distinct green fluorescence is visible around the cells, demonstrating recognition of PECAM1/CD31 in the fixed-cell preparation. The fluorescence pattern provides direct visualization of target detection by clone 158-2B3 and supports the use of this CD31 Monoclonal Antibody for fluorescence-based analysis.



PECAM-1 Antibody 158-2B3 detection of Jurkat cells by FACS. Flow cytometry analysis of PFA-fixed human Jurkat cells using PECAM-1 Antibody 158-2B3. The isotype control population is shown in red and antibody-labeled cells in blue. The blue population displays a clear rightward fluorescence shift relative to the control, demonstrating detection of PECAM1/CD31 by clone 158-2B3. The separation between the antibody and control populations supports recognition of the target by this CD31 Monoclonal Antibody under the tested conditions.



PECAM-1 Antibody 158-2B3 purity assessment by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free PECAM-1 Antibody 158-2B3 provides confirmation of antibody integrity and purity. The displayed protein bands are consistent with the expected immunoglobulin components under the tested electrophoretic conditions. This purified antibody assessment complements the cell-based validation of clone 158-2B3 and provides a quality-control evaluation of the CD31 Monoclonal Antibody preparation.

Description

PECAM-1 Antibody 158-2B3 / CD31 Monoclonal Antibody recognizes platelet endothelial cell adhesion molecule 1, a transmembrane glycoprotein encoded by the PECAM1 gene. Commonly known as PECAM-1 or CD31, this protein belongs to the immunoglobulin superfamily of cell adhesion molecules and contains six extracellular immunoglobulin-like domains, a transmembrane region and a cytoplasmic signaling domain. PECAM1 is prominently expressed by vascular endothelial cells and is also found on platelets, monocytes, neutrophils and subsets of lymphocytes. Its characteristic expression pattern has established CD31 as an important marker for investigating vascular endothelium, angiogenesis and hematopoietic cell biology.

PECAM-1 participates in homophilic interactions between neighboring endothelial cells and contributes to the organization and stability of endothelial junctions. Its cytoplasmic region contains immunoreceptor tyrosine-based inhibitory motifs that undergo phosphorylation and recruit intracellular signaling proteins. Through these adhesive and signaling functions, PECAM1 contributes to vascular barrier integrity, mechanotransduction and endothelial responses to inflammatory and mechanical stimuli. A PECAM-1 Antibody 158-2B3 provides a clone-specific reagent for investigating these functions of platelet endothelial cell adhesion molecule 1.

CD31 also participates in leukocyte transendothelial migration by facilitating interactions involved in movement of immune cells across endothelial junctions. PECAM1 has additional roles in endothelial migration, angiogenesis and vascular remodeling. These functions make the protein relevant to research involving inflammation, cardiovascular biology, tissue repair, vascular development and tumor angiogenesis. A CD31 Monoclonal Antibody can therefore support research into both endothelial organization and the molecular interactions connecting vascular and immune cell biology.

Clone 158-2B3 has been used in multiple published studies investigating PECAM1 and related aspects of endothelial and vascular biology, providing an established literature history for this monoclonal antibody. This publication history complements the broad biological importance of CD31 as an endothelial adhesion and signaling molecule. NSJ Bioreagents provides clone 158-2B3 for researchers investigating PECAM1 expression and vascular biology. A PECAM-1 Antibody 158-2B3 provides a clone-specific tool for studying CD31 and its roles in vascular organization, cell adhesion and immune cell trafficking.

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 PECAM-1 Antibody 158-2B3 should be determined by the researcher.

Immunogen

Stimulated human leukocytes (Workshop VI) were used as the immunogen for the PECAM-1 Antibody 158-2B3.

Storage

Store the PECAM-1 Antibody 158-2B3 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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