# CD31 Antibody / PECAM-1 [clone JC/70A] (V3143CF488)

| Catalog No. | Formulation | Size |
|---|---|---|
| V3143CF488-100T | 500 ul at 0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 Tests |

**Bulk quote request**

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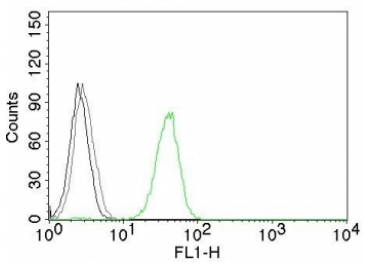
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | CF488 Conjugate |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | JC/70A |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P16284 |
| **Localization** | Cell surface, cytoplasmic |
| **Applications** | Flow Cytometry : 5ul per test per one 10^6 cells in 0.1ml or 5ul per 100ul of whole blood<br>Immunofluorescence : 1:50-1:100 |
| **Limitations** | This CD31 antibody is available for research use only. |




Flow cytometry testing of human Jurkat cells. Black: cells alone; Grey: isotype control; Green: CD31 antibody (clone JC/70A).

## Description

CD31 antibody is widely used in biomedical research to study endothelial cell biology and vascular integrity. CD31, also known as platelet endothelial cell adhesion molecule 1, is a 130 kDa glycoprotein expressed on endothelial cells, platelets, and certain leukocyte subsets. This molecule belongs to the immunoglobulin superfamily and plays an important role in leukocyte transmigration, angiogenesis, and maintaining vascular barrier function. Because of its expression across endothelial junctions, CD31 is a key marker for identifying blood vessels and assessing tissue vascularization.

The protein functions primarily as a mediator of homophilic and heterophilic interactions, binding to itself or to integrins and other adhesion molecules. These interactions regulate immune cell trafficking and inflammation. CD31 engagement can modulate T cell activation and survival, influencing immune responses in both physiologic and pathologic contexts. The protein is also associated with signaling pathways that regulate cell survival, apoptosis resistance, and cytoskeletal rearrangement. As such, studies using CD31 have contributed to our understanding of vascular biology, tumor angiogenesis, and immune regulation.

This CD31 antibody CF488 conjugate provides bright green fluorescence, making it particularly useful in applications that require visualization of vascular structures in tissue sections or cultured cells. The fluorescent conjugation enables direct detection without the need for secondary antibodies, reducing background and improving signal specificity. The JC/70A clone has been widely validated for its reliable binding to CD31 epitopes and has a long history of use in vascular research. Investigators often use clone JC/70A to delineate endothelial cell borders and evaluate vessel density in experimental models.

Research involving angiogenesis, cardiovascular disease, wound healing, and tumor progression often relies on CD31 as a reference marker. By highlighting endothelial structures, researchers can assess processes such as neovascularization, tissue remodeling, and immune cell infiltration. The CF488 conjugate is also advantageous for multiplex experiments, where simultaneous detection of several markers with minimal spectral overlap is required. Combining this antibody with other fluorophore conjugates allows comprehensive mapping of cellular interactions within the vascular microenvironment.

NSJ Bioreagents offers this CD31 antibody conjugated to CF488 to support investigators who require dependable and high quality reagents for their work. The conjugate delivers consistent labeling, enabling reproducible results across experiments. By incorporating this antibody into vascular biology studies, researchers can expand knowledge of endothelial function and disease mechanisms.

## Application Notes

Optimal dilution of the CD31 antibody should be determined by the researcher.

## Immunogen

A membrane preparation of a spleen from a patient with hairy cell leukemia was used as the immunogen for this CD31 antibody.

## Storage

Store the CD31 antibody at 2-8oC, protected from light.