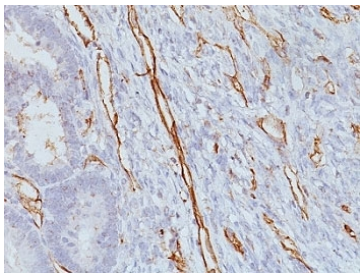
# CD31 Antibody / PECAM1 [clone JC/70A] (V3143)

| Catalog No. | Formulation | Size |
|---|---|---|
| V3143-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V3143-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V3143SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |
| V3143IHC-7ML | Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only* | 7 ml |

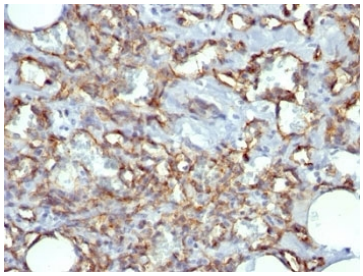
Citations (25)

**Bulk quote request**

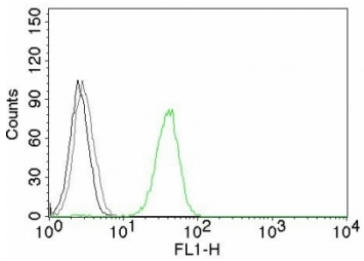
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | JC/70A |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P16284 |
| **Localization** | Cell surface and cytoplasm of endothelial cells |
| **Applications** | Flow Cytometry : 1-2ug/10^6 cells<br>Immunofluorescence : 1-2ug/ml<br>Western Blot : 1-2ug/ml<br>Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT |
| **Limitations** | This CD31 antibody is available for research use only. |



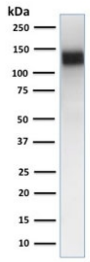
IHC analysis of formalin-fixed, paraffin-embedded human colon carcinoma stained with CD31 antibody (clone JC/70A).



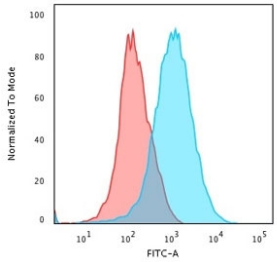
IHC analysis of formalin-fixed, paraffin-embedded human angiosarcoma stained with CD31 antibody (clone JC/70A).



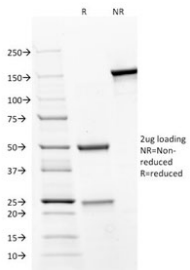

Flow cytometry testing of human Jurkat cells. Black: cells alone; Grey: isotype control; Green: AF488-labeled CD31 antibody (JC/70A).




Western blot testing of ThP1 cell lysate with CD31 antibody (clone JC/70A). Predicted size: 83-130KD depending on level of glycosylation.




Flow cytometry testing of PFA-fixed human Jurkat cells with CD31 antibody (blue, clone JC/70A) and isotype control (red).




SDS-PAGE analysis of purified, BSA-free CD31 antibody (clone JC/70A) as confirmation of integrity and purity.

## Description

CD31 antibody clone JC/70A is a monoclonal antibody that detects platelet endothelial cell adhesion molecule 1, also known as PECAM-1. CD31 is a 130 kDa glycoprotein expressed on endothelial cells, platelets, monocytes, neutrophils, and certain T cells. It plays a crucial role in leukocyte transmigration, angiogenesis, and vascular integrity. NSJ Bioreagents supplies this antibody for vascular biology, oncology, and immunology research.

The antibody produces strong membranous staining of vascular endothelium, allowing clear visualization of blood vessels in tissues. In pathology, CD31 antibody clone JC/70A is a standard marker for vascular tumors such as angiosarcomas and hemangiomas. It supports diagnostic panels used to differentiate vascular from non-vascular neoplasms.

In oncology, CD31 detection provides insights into tumor angiogenesis. Microvessel density, measured using CD31 antibodies, correlates with prognosis and therapeutic response in cancers including breast, prostate, and colorectal carcinoma. The antibody supports studies into how tumors recruit blood vessels to sustain growth and metastasis.

In immunology, CD31 participates in leukocyte trafficking and immune regulation. This antibody enables research into how leukocytes cross endothelial barriers during inflammation and immune surveillance. It has been applied to models of infection, atherosclerosis, and inflammatory disease.

In cardiovascular biology, CD31 serves as an indicator of endothelial function. Detection with this antibody supports research into vascular injury, remodeling, and repair. It has also been used in studies of cardiovascular disease where endothelial dysfunction contributes to pathology.

Validated in tissue-based and cell-based systems, the antibody consistently produces clear membranous staining with minimal background. Alternate names include PECAM-1 antibody, platelet endothelial cell adhesion molecule antibody, and vascular endothelial marker antibody.

## Application Notes

The optimal dilution of the CD31 antibody for each application 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 minutes.
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

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 (with azide) or aliquot and store at -20oC or colder (without azide).

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