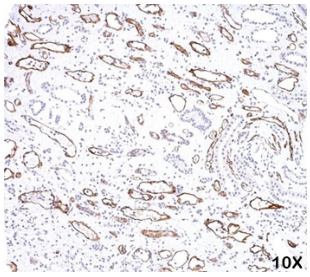
C4d Antibody C4D204 / Complement 4d Antibody [clone C4D204] (V2021)

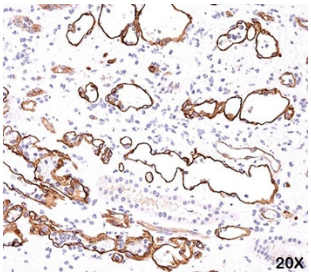
Catalog No.	Formulation	Size
V2021-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2021-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2021SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2021IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

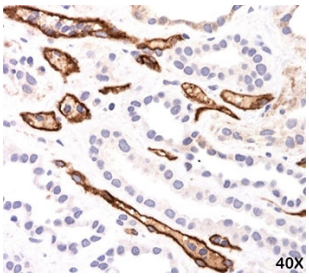
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	C4D204
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	720
Localization	Intracytoplasmic vacuoles of endothelial cells; Secreted
Applications	ELISA: 1-2ug/ml for coating (order BSA/sodium azide-free format) Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This C4d Antibody C4D204 / Complement 4d Antibody is available for research use only.



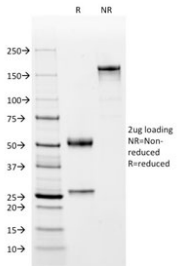
C4d Antibody C4D204 in Human Kidney Transplant Tissue IHC. Immunohistochemistry staining of FFPE human kidney transplant tissue with C4d Antibody clone C4D204 demonstrates strong brown staining outlining peritubular capillaries and vascular structures. The predominantly linear and circumferential staining pattern highlights deposition of the Complement 4d fragment along the renal microvasculature, with comparatively little staining of surrounding tubular epithelial cells. Hematoxylin counterstaining provides visualization of nuclei and renal tissue architecture with low nonspecific background.



C4d Antibody C4D204 Detects Peritubular Capillary Deposition in Kidney Transplant Tissue IHC. Immunohistochemistry analysis of FFPE human kidney transplant tissue with C4d Antibody clone C4D204 shows prominent brown staining along peritubular capillary walls. The Complement 4d Antibody produces sharply defined linear and circumferential staining around vascular profiles between renal tubules, while surrounding parenchymal cells and nuclei remain largely unstained. The strong contrast against the hematoxylin counterstain allows clear visualization of the distribution of C4d deposition throughout the tissue.



C4d Antibody C4D204 Highlights Renal Microvasculature in Kidney Transplant Tissue IHC. Immunohistochemistry staining of FFPE human kidney transplant tissue with C4d Antibody clone C4D204 demonstrates sharply defined brown staining along peritubular capillary walls. The detailed view shows linear and circumferential Complement 4d staining outlining microvascular structures between renal tubules, while adjacent tubular epithelial cells and nuclei show little to no specific staining. Hematoxylin counterstaining clearly delineates renal architecture and emphasizes the localized pattern of C4d deposition.



SDS-PAGE analysis of purified, BSA-free C4d antibody (clone C4D204) as confirmation of integrity and purity.

Description

C4d Antibody reagents detect complement component 4d, a stable cleavage fragment generated during activation of the complement system. Complement C4 participates in the classical and lectin complement pathways and is proteolytically cleaved to form C4a and C4b. C4b contains a reactive thioester that permits covalent attachment to nearby biological surfaces. Subsequent processing of deposited C4b produces C4d, which remains attached after other portions of the molecule are removed. This persistence makes C4d a useful molecular footprint of previous complement activation.

C4d deposition is particularly important in transplantation research. Antibody-dependent activation of the classical complement pathway can result in deposition of C4 fragments along vascular and microvascular structures in transplanted organs. C4d has consequently become an extensively studied marker in investigations of antibody-mediated allograft injury and humoral immune responses. Complement 4d Antibody reagents are also useful for examining the distribution and persistence of complement activation within affected tissues.

Beyond transplantation, C4d is studied in autoimmune, inflammatory, renal, and immune complex-associated conditions. Because covalently bound C4d can persist after the initiating complement reaction has subsided, its presence can provide evidence of earlier classical or lectin pathway activity. This property distinguishes C4d from more transient soluble complement products and makes it useful for studying the spatial relationship between complement activation and tissue injury.

C4d originates from the larger C4 protein encoded by the closely related C4A and C4B genes within the major histocompatibility complex. Although these precursor proteins participate directly in complement cascade reactions, the resulting C4d fragment no longer has the same enzymatic role. Instead, its stability and surface retention allow it to serve as a durable indicator of complement deposition. Research involving C4d therefore contributes to understanding humoral immunity, complement-mediated inflammation, and mechanisms of tissue injury.

A C4d Antibody such as clone C4D204 provides a monoclonal reagent for detecting this stable complement fragment. C4D204 recognizes human C4d and can support studies examining complement deposition and activation. NSJ Bioreagents offers this antibody for research into complement biology and immune-mediated processes.

Explore our Immunology Antibodies page for additional antibodies targeting complement proteins and other mediators of immune responses.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the C4d Antibody C4D204 / Complement 4d Antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 1mM EDTA, pH 7.5-8.5, 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

Recombinant human C4d protein was used as the immunogen for this C4d Antibody C4D204.

Storage

Store the C4d Antibody C4D204 at 2-8oC.

Alternate Names

C4d antibody, Complement 4d antibody, Complement component 4d antibody, C4A antibody, Complement C4-A antibody, CO4 antibody, CPAMD2 antibody

References (3)

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