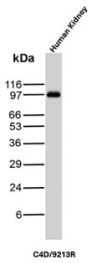
Complement C4d Antibody C4D/9213R / C4d Fragment Antibody [clone C4D/9213R] (V5455)

Catalog No.	Formulation	Size
V5455-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5455-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5455SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

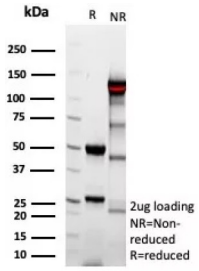
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	C4D/9213R
Purity	Protein A/G affinity
UniProt	P0C0L4, P0C0L5
RRID	AB_3753798
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This Complement C4d Antibody C4D/9213R / C4d Fragment Antibody is available for research use only.



Complement C4d Antibody C4D/9213R in Human Kidney WB. Western blot testing of human kidney tissue lysate with Complement C4d Antibody clone C4D/9213R detects a strong, discrete band at approximately 90-95 kDa with minimal additional reactivity. The observed band represents C4-derived material containing the C4d fragment rather than free C4d alone, which has a substantially lower molecular weight. The prominent C4d-containing species demonstrates clear recognition by the C4d Fragment Antibody in human kidney lysate.



Purified Complement C4d Antibody C4D/9213R Reducing and Non-Reducing SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Complement C4d Antibody clone C4D/9213R demonstrates prominent heavy and light antibody chains at approximately 50 and 25 kDa under reducing conditions. Under non-reducing conditions, the major intact antibody species migrates at approximately 110-125 kDa, with additional lower-molecular-weight species also visible. The gel provides an assessment of the integrity and composition of the purified C4d Fragment Antibody preparation.

Description

Complement C4d Antibody reagents recognize C4d, a stable cleavage fragment produced during activation and subsequent processing of complement component C4. C4 participates in the classical and lectin complement pathways, where proteolytic activation generates C4a and C4b. The larger C4b fragment contains a reactive thioester that enables covalent attachment to nearby cell surfaces and extracellular structures. Further proteolysis produces C4d, which can remain attached at the site of complement activation after other portions of C4 have been removed.

The persistence of C4d makes it a useful molecular footprint of prior complement activity. Deposited C4d can identify locations where the classical or lectin pathway has been activated even after more transient components of the reaction are no longer present. A C4d Fragment Antibody can therefore support investigation of complement deposition, immune complex-associated responses, and the relationship between complement activation and tissue injury.

C4d is particularly well studied in transplantation research. Deposition along peritubular capillaries and other microvascular structures has been investigated extensively in the context of antibody-mediated responses to transplanted organs. C4d is also studied in autoimmune and inflammatory conditions in which immune complexes and complement activation contribute to tissue pathology. Its stable association with affected surfaces provides a means of examining the distribution of complement activity within tissues.

Human complement C4 is encoded by the closely related C4A and C4B genes. Their protein products are highly homologous precursors that can both undergo complement-mediated processing leading to C4d formation. Consequently, C4d should be distinguished from intact Complement C4-A and Complement C4-B proteins when interpreting antibody specificity. The fragment itself represents a downstream product of C4 activation rather than the intact precursor molecule.

A Complement C4d Antibody such as clone C4D/9213R provides a monoclonal reagent for studying this stable complement fragment. The antibody was generated against recombinant full-length human Complement 4d and recognizes human C4d. NSJ Bioreagents offers this reagent for research involving complement activation, immune-mediated responses, and C4d deposition.

For an established mouse monoclonal with published use, see our C4d Antibody C4D204 / Complement 4d Antibody page.

Application Notes

Optimal dilution of the Complement C4d Antibody C4D/9213R / C4d Fragment Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human Complement 4d protein was used as the immunogen for the Complement C4d Antibody C4D/9213R.

Storage

Aliquot the Complement C4d Antibody C4D/9213R and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

C4d antibody, Complement C4d antibody, Complement 4d antibody, C4d fragment antibody, Complement component 4d antibody, C4A antibody, C4B antibody

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