

Mouse Anti-C3d [MD294]: MC0597, MC0597RTU7

Intended Use: For Research Use Only

Description: Complement component C3 plays a central role in the activation of complement system. Its activation is required for both classical and alternative complement activation pathways. C3d deposition in the renal transplant PTCs (peritubular capillaries) is indicative of AR (acute rejection) with subsequent high probability of graft loss. Anti-C3d, combined with anti-C4d, can be utilized as a tool for diagnosis of AR and warrant prompt and aggressive anti-rejection treatment. It was shown that anti-C3d labeled the epidermal basement membrane in 97% (31/32) cases of bullous pemphigoid (BP), with none of the normal controls demonstrating such findings. In the same study 27% (3/11) cases of pemphigus vulgaris (PV) demonstrated intercellular C3d deposition. Therefore, C3d immunohistochemistry is a helpful adjunct in the diagnosis of BP (and perhaps PV), especially in the cases in which only formalin-fixed, paraffin embedded tissue is available for analysis.

Specifications:

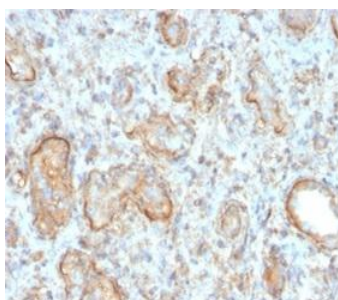
Clone: MD294
 Source: Mouse
 Isotype: IgG2b
 Reactivity: Human
 Immunogen: Recombinant fragment aa 1250-1450 of human C3 protein
 Localization: Membrane or cytoplasm
 Formulation: Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
C3d Concentrated	MC0597	1 ml
C3d Prediluted	MC0597RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Acute rejected kidney transplant
 Concentrated Dilution: 50-200
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human rejected kidney transplant stained with anti-C3d using DAB (basement membrane staining of renal tubules and glomeruli)

References:

1. Safety and Efficacy of the Complement Inhibitor AMY-101 in a Natural Model of Periodontitis in Non-human Primates. Kajikawa T, et al. Mol Ther Methods Clin Dev 6:207-215, 2017.
2. The CD46-Jagged1 interaction is critical for human T(H)1 immunity. Le Friec G, et al. Nat Immunol 13:1213-21, 2012.
3. Three rat monoclonal antibodies to human C3. Lachmann PJ, et al. Immunology 41:503-15, 1980.