

Rabbit anti-Human C4d Monoclonal Antibody | anti-C4d antibody

C4d

CATALOG # AAA58793	HOST Rabbit	REACTIVITY Human
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PRODUCT SYNONYMS

C4d; Monoclonal Antibody; anti-C4d antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Form/Format	Tris Buffer, pH 7.3 - 7.7, with 1% BSA and <0.1% Sodium Azide
Positive Control	Lymph node, Tonsil
Localization	Membranous, Cytoplasmic
Procedure	Visualization of the antigen present in tissue sections is accomplished in a multi-step immunohistochemical staining process, in conjunction with a horseradish peroxidase (HRP) or alkaline phosphatase (AP) linked detection system. The process involves the addition of the stated antibody (primary antibody) to a tissue slide, followed by a secondary antibody (linked to an enzyme complex) which specifically binds to the primary antibody. A chromogenic substrate is then added which reacts with the enzyme complex, resulting in a colorimetric reaction at the site of the antigen. Results are interpreted using a light microscope.
Reconstitution, Mixing, Dilution, and Titration	The prediluted antibody does not require any mixing, dilution, reconstitution, or titration; the antibody is ready-to-use and optimized for staining. Any further dilution may affect the quality of the staining signal or antibody-antigen interaction. The concentrated antibody requires dilution using an Antibody Diluent Buffer, to the recommended working dilution range listed in the table above, prior to use.
Specimen Collection and Preparation for Analysis	Each tissue section should be fixed with 10% neutral buffered formalin, cut to the applicable thickness (4um), and placed on a glass slide that is positively charged. The prepared slide should then be baked for a minimum of 30 minutes in a 53- 65 degree C oven (do not exceed 24 hours). Note: Performance evaluation has been shown on human tissues only. Variable results may occur due to extended fixation time or variations in tissue preparation. Do not use alcohol containing fixatives as those may result in a loss of staining activity. Material Required but not Provided The following materials are required but are not provided: a) Detection system (ie. BOND Polymer Refine Detection Kit or UltraView/OptiView Universal DAB Detection Kit) b) Chromogen (ie. DAB Substrate Kit) c) IHC wash buffer and blocking solution d) Hematoxylin or other counterstaining reagents e) Ethanol or reagent alcohol, xylene or xylene substitute and mounting medium f) Antibody diluents g) Positive and negative control tissue
Instructions For Use	Automated Staining with Leica Biosystems Bond-MAX Platform: This primary antibody has been optimized and validated using the Leica Bond-MAX Fully Automated IHC & ISH Stainer, applying IHC Protocol F. Heat-induced epitope retrieval (HIER) is recommended using ER2 for 20-30 minutes. Antibody concentrate dilution range is 1:50-1:200.

Quality Control Procedures and Interpretation of Results	The immunohistochemical staining process results in a colorimetric reaction at the site of the antigen, localized by the primary antibody. The tissue specimen result should be interpreted only after the positive and negative control tissues have been analyzed. It is recommended to include a set of tissue controls with each staining run to monitor for antibody, tissue, and reagent performance. Tissue sections may contain both positive and negative staining elements. In these cases and where applicable, these sections may serve as both the positive and negative tissue control. Positive Control Tissue A positive control tissue should be processed in the same manner as the specimen and run with each test condition to provide control for variables such as tissue processing, fixation, and staining. It should function to provide validity to the specimen results obtained and can consist of fresh autopsy, biopsy, or surgical tissue. Once stained, the positive control tissue should be analyzed first to ensure that the antibody and all reagents are performing as intended. Counterstaining will result in a blue coloration, which may range from pale to dark depending on the length of the incubation time and potency of the hematoxylin. If positive staining is not observed, the positive control tissue must be deemed invalid and the results obtained with the tissue specimen must also be treated as such. Negative Control Tissue Some tissue sections can also function as an internal negative control due to the diversity of staining elements present. This, however, should first be confirmed by the user. Tissue components that do not stain should demonstrate an absence of specific staining. If specific staining is observed, the negative control tissue must be deemed invalid and the results obtained with the tissue specimen must also be treated as such. Tissue Specimens Tissue specimens should only be analyzed after the positive and negative control tissues have been deemed valid. Negative staining indicates that the antigen was not detected in the tissue while positive staining represents the presence of the antigen. A tissue section stained with hematoxylin and eosin should be used to analyze the morphology of the tissue specimen and verified by a qualified pathologist. Performance Characteristics This antibody has been validated by immunohistochemistry using a FFPE human tissue microarray comprised of different types of normal and cancerous tissues. Positive staining was observed in tonsil and kidney tissues. No staining was seen in heart muscle and lung cancer tissues. Analytical Performance Trueness of Measure was analyzed using tissue samples from peer-reviewed, published literature known to be either positive or negative, and this study found no unexpected results. Precision of Measure analysis involved known positive tissue samples performed to assess the repeatability and reproducibility of the antibody product over time and in different lots; standard acceptance criteria were met in all studies. Analytical Specificity testing found the only known interference comes from alcohol containing fixatives, which demonstrated a loss of staining activity and thus should not be used in conjunction with the processing of samples to be stained using this product. Analytical Sensitivity was tested using randomly chosen tissues representing different levels of antigen expression, a range of staining intensities was observed illustrating the product is sensitive to staining a diverse range of expression levels. Limits of Detection, Measurement Range and Linearity of Measure are all unable to be defined for qualitative and non-linear products such as this.
Troubleshooting	- If tissue sections wash off the slide, this may be caused by: - Slides are not positively charged. - Inadequate neutral-buffering of the formalin used for the fixation process. - A thick tissue section. - Inadequate drying of the tissue section prior to staining. - If the positive control tissue exhibits negative staining, this may be due to: - An issue with the primary antibody or one of the secondary reagents. - Improper collection, fixation or deparaffinization of the tissue section. - Errors in the IHC staining process. - If the positive control tissue exhibits weaker staining than expected, this may be due to sub-optimal IHC conditions, partial degradation of the primary antibody or improper storage of secondary reagents. Analysis of the positive and/or negative control tissues can help with determining the cause.
Preparation and Storage	Store at 2-8 degree C. To ensure stability, immediately replace vial back in the refrigerator after each use. When stored correctly, the antibody is stable until the expiry date indicated on the label. Positive and negative controls should be concurrently run with tissue specimens, to enable identification of any inadequacies with the antibody or reagents.

IMAGES



Dilution Info



IHC (Immunohistochemistry)
C4D [AAA58793] on Tonsil

ADDITIONAL INFORMATION

Related Product Information for anti-C4d antibody	C4d plays an integral role in the complement system. C4d has been established as a marker for antibody-mediated acute renal allograft rejection, and C4d staining is also used for identifying hyperactive rejection, acute cellular rejection, and borderline rejection during transplantation. C4d in concert with C3d staining is used to understand kidney graft survival and rejection
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/monoclonal/c4d-antibody-elisa/58793>