**Product datasheet**

**Anti-C4d antibody ab36075**

![4 Abreviews](image)

**Overview**

**Product name**  Anti-C4d antibody  
**Description**  Rabbit polyclonal to C4d  
**Host species**  Rabbit  
**Specificity**  Recognizes C4d-A and C4d-B.  
**Tested applications**  Suitable for: IHC-P, Flow Cyt, ICC/IF, IHC-Fr  
**Species reactivity**  Reacts with: Human  
**Immunogen**  Synthetic peptide corresponding to Human C4d aa 1223-1237 (C terminal) conjugated to keyhole limpet haemocyanin. Region 100% conserved in C4d-B (Uniprot: P0C0L5)  
**Sequence:**  ETGDNLYWGSVTGSQ  
**Database link:**  P0C0L4

**Positive control**  Glomerular mesangial tissue

**Properties**

**Form**  Liquid  
**Storage instructions**  Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.  
**Storage buffer**  Preservative: 0.09% Sodium Azide  
  Constituents: PBS, pH 7.2  
**Purity**  Protein G purified  
**Clonality**  Polyclonal  
**Isotype**  IgG

**Applications**

Our **Abpromise guarantee** covers the use of **ab36075** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**
C4 plays a central role in the activation of the classical pathway of the complement system. It is processed by activated C1 which removes from the alpha chain the C4a anaphylatoxin. The remaining alpha chain fragment C4b is the major activation product and is an essential subunit of the C3 convertase (C4b2a) and the C5 convertase (C3bC4b2a) enzymes of the classical complement pathway.

Derived from proteolytic degradation of complement C4, C4a anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes.

**Involvement in disease**
Defects in C4A are the cause of complement component 4A deficiency (C4AD) [MIM:120810]. A rare defect of the complement classical pathway associated with the development of autoimmune disorders, mainly systemic lupus with or without associated glomerulonephritis.

**Sequence similarities**
Contains 1 anaphylatoxin-like domain.
Contains 1 NTR domain.

**Post-translational modifications**
Prior to secretion, the single-chain precursor is enzymatically cleaved to yield the non-identical chains (alpha, beta and gamma). During activation, the alpha chain is cleaved by C1 into C4a and C4b, and C4b stays linked to the beta and gamma chains. Further degradation of C4b by C1 into the inactive fragments C4c and C4d blocks the generation of C3 convertase. N- and O-glycosylated. O-glycosylated with a core 1 or possibly core 8 glycan.

**Cellular localization**
Secreted.

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<thead>
<tr>
<th>Application</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-P</td>
<td>1/20 - 1/80. Antigen retrieval with a citrate buffer system (or equivalent) is recommended.</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>ICC/IF</td>
<td>1/20 - 1/80.</td>
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<tr>
<td>IHC-Fr</td>
<td>1/20 - 1/80.</td>
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**Images**
Immunohistochemical analysis of C4d expression in paraffin embedded formalin fixed human glomerular mesangial tissue, using 1/40 ab36075. Staining developed using high sensitivity Avidin/Biotin detection system.

ab36075 staining C4d in human kidney cells by Immunocytochemistry/ Immunofluorescence (snap frozen). The cells were acetone fixed. Samples were incubated with primary antibody at 1/60 for 1 hour at 25°C. The secondary antibody used was an IgG conjugated to Alexa Fluor® 488.

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