

**AP21439HR-N****Polyclonal Antibody to Complement C3c - HRP****Alternate names:**

CPAMD1, Complement component 3

**Quantity:**

1 ml

**Concentration:**

10.0 mg/ml

**Background:**

C3 is the most abundant complement protein in rat serum. Its biological function strongly resembles that of C3 in man and other laboratory animal species. It has a central role in the activation system being common to both pathways. Activation of C3 is achieved by very specific limited proteolysis resulting in the release of a number of degradation fragments. The anaphylotoxin C3a promotes smooth muscle contraction and increases vascular permeability; the large C3b fragment is involved in binding to the complement activator and can interact with specific receptors to allow efficient clearance of the activating cell or particle; degradation fragments of C3b (C3bi, C3c, C3dg, C3d) are important in receptor binding and clearance mechanisms, in virus neutralization and possibly in the immune response.

**Uniprot ID:**[P01026](#)**NCBI:**[NP\\_058690](#)**GeneID:**[24232](#)**Host / Isotype:**

Goat / IgG

**Immunogen:**

C3c isolated and purified from pooled normal Rat serum.  
Freund's complete adjuvant is used in the first step of the immunization procedure.

**Format:**

**State:** Lyophilized hyperimmune IgG fraction  
**Purification:** The IgG fraction is isolated and purified from the antiserum and contains the bulk of the defined antibody specificity. It is free of other serum proteins as tested by immunoelectrophoresis and double radial immunodiffusion  
**Buffer System:** PBS, pH 7.2 without preservatives and foreign proteins  
**Label:** HRP – Horseradish Peroxidase  
*Molar Ratio:* Peroxidase/IgG ~1.8

**Reconstitution:** Restore by adding 1.0 ml of sterile distilled water

**Applications:**

This Peroxidase-coupled purified antibody can be used in Enzyme-Immunocytochemical and Histochemical staining of Rat C3c in appropriately prepared substrates at the cellular and subcellular level. Locally deposited immune complexes in tissue usually contain complement, pointing to activation of the classical pathway. Complement activation in vivo implies active disease and may contribute to the elicitation of the pathogenesis and the extent of tissue destruction. In ELISA and Western blotting to identify rat C3c in serum or other body fluids.  
**Recommended Dilutions:**  
Histochemistry and Cytochemistry: 1/100-1/500  
ELISA and comparable non-precipitating antibody-binding assays: 1/1,000-1/5,000.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

#### Specificity:

In Immunoelectrophoresis against fresh Rat serum, a single precipitin line is obtained in the beta-1 region representing native C3.

Against serum containing partly activated C3, a precipitin line is obtained which extends from the beta-1 into the alpha-2 region, demonstrating a gradient. In old serum containing totally activated C3 a single precipitin line in the alpha-2 region is obtained. Antisera to C3c can also react with the fragments C3b, C3bi and smaller fragments, since they all carry antigenic determinants of the C3c domain.

The product does not react with any other protein components of Rat serum or plasma.

#### Cross-reactivity:

The antiserum does not cross-react with any other component of Rat plasma. Inter-species cross-reactivity is a normal feature of antibodies to plasma proteins since they frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail.

#### Adsorption:

Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies cross-reacting with other with other plasma proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.

#### Species: Rat.

Other species not tested.

#### Add. Information:

This immunoconjugate is not pre-diluted. The optimum working dilution of each conjugate should be established by titration before being used. Excess labelled antibody must be avoided because it may cause high unspecific background staining and interfere with the specific signal.

#### Storage:

Store the antibody lyophilized at 2-8°C and reconstituted at 2-8°C for one week or (in aliquots) at -20°C for longer.

If a slight precipitation occurs upon storage, this should be removed by centrifugation.

Shelf life: one year from despatch.