

AP31080SU-N**Polyclonal Antibody to Complement C3c - Serum****Alternate names:**

CPAMD1, Complement component 3

Quantity:

1 ml

Background:

C3 is the most abundant complement protein in guinea pig 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. The antiserum is raised against C3c, which is the major fragment resulting from C3 cleavage by C3 convertase and factor I. It is composed of an intact beta chain bound to two fragments of the alpha chain. Consequently the antiserum reacts with both native and activated C3. It may also react with the fragments C3b, C3bi and C3dg, since they all carry antigenic epitopes of the C3c domain.

Uniprot ID:[P01026](#)**NCBI:**[10116](#)**GeneID:**[24232](#)**Host:**

Goat

Immunogen:

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

Format:

State: Lyophilized, Delipidated, Heat inactivated, Stable Whole Serum without preservatives

Reconstitution: Restore by adding 1 ml of sterile distilled water

Applications:

Can be used in precipitating techniques as immunoelectrophoresis and single and Double Radial Immunodiffusion (Mancini, Ouchterlony) to identify the presence of complement C3c or to determine its concentration. The presence of non-precipitating antibodies has not been assayed. This does not exclude the use of the antiserum in non-precipitating antibody-binding techniques if proper controls are included. Determinations of individual complement components can be very useful in defining the exact location of a defect.

Working Dilutions:

Immunoelectrophoresis: Use 2 µl of Mouse plasma or equivalent against 120 µl antiserum.

Double Radial Immunodiffusion: a rosette arrangement with 10 µl antiserum in 3 mm diameter center well and 2 µl plasma samples (neat and serially diluted) in 2 mm diameter peripheral wells.

Single Radial Immunodiffusion: Use a 1% antiserum in the gel.

Antibody titre: Precipitin titre not less than 1/32 when tested against normal Mouse plasma in agar-block immunodiffusion titration.

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

Specificity:

In immunoelectrophoresis against fresh Mouse 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 proteins component of Mouse serum or plasma.

Cross-reactivity: Inter-species cross-reactivity is a normal feature of antibodies to plasma proteins, since homologous proteins of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail.

Species: Mouse.

Other species not tested.

Add. Information:

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

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.