

Product datasheet for AP31083SU-N

C3 Goat Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

ID, IP **Applications:**

Recommended Dilution: 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 antibodybinding techniques if proper controls are included. Determinations of individual complement

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components can be very useful in defining the exact location of a defect.

Working Dilutions:

Immunoelectrophoresis: Use 2 μl of Monkey 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 Monkey plasma

in agar-block immunodiffusion titration.

Reactivity: Monkey

Host: Goat

Clonality: Polyclonal

Immunogen: C3c is isolated and purified from pooled normal Monkey serum by precipitation techniques

followed by chromatographical methods.

Freund's complete adjuvant is used in the first step of the immunization procedure.





Specificity:

In immunoelectrophoresis against fresh Monkey 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 Monkey serum or plasma. Cross-reactivity: The antiserum does not cross-react with any other component of Monkey plasma.

Inter-species crossreactivity is a normal feature of antibodies to plasma proteins since they frequently share antigenic determinants. In addition to a clear reactivity with C3c of other oldworld monkeys (Cercopithecus, Cynomolgus and Baboon), this antiserum shows also a fair amount of cross-reactivity to C3C of other species, including chimpanzee and man.

Formulation: State: Serum

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

Reconstitution Method: Restore by adding 1 ml of sterile distilled water

Concentration: Total protein and IgG concentrations in the antiserum are comparable to those of normal

pooled goat serum. No foreign proteins added.

Conjugation: Unconjugated

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.

Stability: Shelf life: one year from despatch.

Gene Name: complement component 3

Database Link: Entrez Gene 24232 Rat

P01026

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 be 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.



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Synonyms:

CPAMD1, Complement component 3

Note:

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