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Product datasheet for AP32977SU-N

C3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ID, IP, R
Recommended Dilution:	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. *Directions for use*: In immunoelectrophoresis use 2 µl Guinea Pig plasma or equivalent against 120 µl antiserum. In double radial immunodiffusion use 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. In single radial immunodiffusion use 1 percent antiserum in the gel. *Antibody titre:* Precipitin titre not less than 1:32 when tested against normal guinea pig plasma in agar-block immunodiffusion titration.
Reactivity:	Guinea Pig
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The protein is isolated and purified from pooled normal Guinea Pig serum by precipitation techniques, followed by chromatographical methods. Freund's complete adjuvant is used in the first step of the immunization procedure.

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Specificity:	In immunoelectrophoresis against fresh guinea pig 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. The product does not react with any other proteins component of guinea pig 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.
Formulation:	No preservative added. - No foreign proteins added. State: Serum State: Delipidated, heat inactivated, lyophilized, stable whole serum.
Reconstitution Method:	Restore with 1 ml sterile distilled water.
Concentration:	Total protein and IgG concentrations in the antiserum are comparable to those of normal pooled rabbit serum. No foreign proteins added.
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one week or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	complement component 3
Database Link:	Entrez Gene 717 Human 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 in both pathways. Activation of C3 is achieved by specific limited proteolysis resulting in the increase of a number of degradation fragments. The anaphylatoxin 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 and C3d) are important in receptor binding and clearance mechanisms, in virus neutralization and possible in the immune response. The antiserum is raised against C3c which is the major fragment resulting from the 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 antisera to C3c react 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.
Synonyms:	CPAMD1, Complement component 3

Note:	**Adsorption:** Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies reacting with other guinea pig serum proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Complement and coagulation cascades, Systemic lupus erythematosus