

Description	Precipitating polyclonal rabbit antiserum to the C4 component of human complement	
Product code	RAHu/C4	
Biological origin	Rabbit	
Physical form	Delipidated, heat inactivated, lyophilized, stable whole antiserum	
Preservative	No preservative added.	
Immunogen	<p>C4 and C2 represent substrates for activated C1. Both components are present in serum in an inert form. C4 is composed of 3 polypeptide chains of three different types, α, β, γ. One of the chains is cleaved by the action of activated C1, resulting in activation of C4 exposing an binding site for the next component in the sequence, C2. C4 has a molecular weight of 205.000 and is present in plasma in an average concentration of 600 $\mu\text{g/ml}$. The activation of C4 yields two peptide fragments: C4a (MW 8,000) and C4b (MW 198,000). This process shows a considerable degree of similarity to the activation of the components C3 and C5.</p> <p>The C4 is isolated as a homogenous protein for use in antiserum production. Freund's complete adjuvant is used in the first step of the immunization procedure.</p>	
Adsorption	Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies reacting with other plasma proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.	
Identity & Specificity	The reactivity of the antiserum is restricted to C4. In immunoelectrophoresis and radial immunodiffusion (Ouchterlony), using various antiserum concentrations against fresh normal human plasma a single precipitin line is obtained which shows a reaction of identity with the precipitin line obtained with purified C4 protein. Activated C4b may also react with the antiserum. No reaction is obtained with any other plasma protein component or serum.	
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to serum proteins, since homologous proteins of different species frequently share antigenic determinants. The degree of cross-reactivity is also dependent on the concentrations of the reactants and the sensitivity of the assay arrangement. This antiserum has been tested for cross-reactivity in double radial immunodiffusion with bovine serum and found negative.	
Protein concentration	Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal rabbit serum. No foreign proteins added.	
Antibody titre	Precipitin titre 1:16 when tested against in agar-block immunodiffusion titration against human serum	
Intended use	In precipitating techniques as immunoelectrophoresis and single or double radial immunodiffusion to identify the presence of C4 containing complexes in human plasma or other body fluids 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 more sensitive non-precipitating antibody-binding techniques if proper controls are included.	
Directions for use	<p>The lyophilized antiserum is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized antiserum by adding 1 ml sterile distilled water. Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance of the antiserum.</p> <p>Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.</p>	
Packing	Vial with 1 ml lyophilized antiserum.	
Storage / shelf life	Lyophilized at +4°C	at least 10 years
	reconstituted at or below -20°C	3-5 years
	reconstituted at +4°C	7 days
Caution	This antiserum should be handled by qualified persons only and appropriate precautions should be taken in its handling and disposal, and of all associated materials. For <i>in vitro</i> research purposes only.	

NORDIC IMMUNOLOGICAL LABORATORIES
 Langendijk 25, 5652 AX Eindhoven, The Netherlands
 Tel. +31 630 070 625, Fax: +31 402 920 069
 E-mail: info@nordiclabs.nl
 www.nordiclabs.nl