

Description	Precipitating polyclonal rabbit antiserum to human coagulation factor V	
Product code	RAHu/FV	
Biological origin	Rabbit	
Physical form	Delipidated, heat inactivated, lyophilized, stable whole serum, dialyzed against glycine buffer.	
Preservative	Sodium azide, 1 mg/ml	
Immunogen	<p>Plasma factor V is a relatively labile glycoprotein (MW 350,000) which is essential for normal clotting and haemostasis. It is synthesized in hepatocytes and reticuloendothelial cells in the liver. Factor V is present in platelet alpha-granules but not on the surface of the intact platelet. It is released following platelet aggregation and its coagulant activity is distinguishable from plasma factor V. Thrombin activates Factor V to FVa by proteolysis resulting in the release of several polypeptides with molecular weight of 70,000 to 150,000. After clotting the protein is no longer detectable in the serum. FVa binds to receptor sites in the platelet membrane which protects Fva from the action of inhibitors (e.g. protein C).</p> <p>The concentration of factor V in adult plasma is 1-3 µg/ml. Newborn infants have similar levels. Factor V deficiency is associated with severe haemorrhagic disorder. Congenital deficiency with an autosomal bleeding is relatively rare. It exists in two molecular forms: coagulant activity may be reduced together with factor V antigen levels (impaired synthesis), or low coagulant activity is associated with the presence of a variable level of plasma factor V (abnormal molecules). Both conditions lead to frequent minor bleedings of skin and mucosal tissues. Acquired deficiency with reduced factor V antigen levels can be a reliable parameter of liver damage in severe liver diseases. Circulating antibodies to factor V acting as neutralizing inhibitors of plasma and platelet factor V have been described. Highly purified Factor V is isolated from pooled human plasma and used for immunization. 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 human serum proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.	
Identity & Specificity	The defined antibody reactivity is restricted to Factor V, its activated form (Fva) and degradation products. In immunoelectrophoresis, bidimensional electrophoresis, and double radial immunodiffusion (Ouchterlony) against plasma, a single precipitin line is obtained which shows a reaction of identity with the precipitated purified Factor V. No precipitation is obtained with Factor V-depleted plasma and serum.	
Cross-reactivity	The antiserum does not cross-react with any other human plasma proteins as tested in gel-diffusion techniques. 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, however in double radial immunodiffusion a reaction with Rhesus monkey has been observed.	
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	Measured by quantitative precipitin analysis. The amount of factor V precipitated by 1 ml antiserum is between 8 and 12 U. One Unit of Factor V is defined as the amount of factor V present in 1 ml normal plasma. On the average this corresponds to 20 µg.	
Intended use	<p>In precipitating techniques as electroimmunodiffusion, immunoelectrophoresis, single and double radial immunodiffusion (Mancini, Ouchterlony) and neutralization assay.</p> <p>The presence of non-precipitating antibodies has not been assayed. If used in more sensitive test procedures or as catching or detection antibody in solid phase immunoassays specificity controls should always be included. Plasma samples and all assay components must contain EDTA to stabilize the proteins.</p>	
Directions for use	<p>In immunoelectrophoresis in agarose-plates use 2 µl human 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 electroimmunodiffusion the antiserum concentration required in the gel is normally between 1 and 2%.</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
Handling	<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>	
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.	

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