

<b>Description</b>	<b>Precipitating polyclonal rabbit antiserum to human Von Willebrand Factor (FVIII VWF)</b>	
<b>Product code</b>	RAHu/FVIII VWD	
<b>Biological origin</b>	Rabbit	
<b>Physical form</b>	Delipidated, heat inactivated, lyophilized, stable whole serum.	
<b>Preservative</b>	No preservative added.	
<b>Immunogen</b>	Human FVIII procoagulant activity (FVIIIIC) is carried by a polypeptide non-covalently bound to a large carrier molecule (unit molecular weight 250 kD) known as the Von Willebrand factor (VWF). FVIII/VWF exists in plasma as a series of polymers with molecular weights > 1.100 kD. FVIIIIC is probably formed in the liver, is unstable on storage but sufficiently stable in fresh frozen plasma as cryoprecipitate or FVIII concentrate. VWF is synthesized in megakaryocytes and vascular endothelial cells; it is also present in the alpha-granules and membranes of platelets, binding to specific sites on the activated platelet after its release. It is responsible for platelet adhesion to the vascular subendothelium. FVIIIIC, but not VWF is completely consumed during coagulation and is absent from serum. Polyclonal antisera are raised against FVIII/VWF purified from plasma. Freund's complete adjuvant is used in the first step of the immunization procedure.	
<b>Adsorption</b>	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.	
<b>Identity &amp; Specificity</b>	The defined antibody reactivity is restricted to VWF. In immunoelectrophoresis, bi-dimensional electrophoresis and radial immunodiffusion (Ouchterlony) against normal plasma, a single precipitin line is obtained which shows a reaction of identity with precipitated purified FVIII/VWF. No precipitation is obtained with plasma of type 1 congenital Von Willebrand's disease.	
<b>Cross-reactivity</b>	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.	
<b>Protein concentration</b>	IgG protein concentration in the antiserum is 10 mg/ml. No foreign proteins added.	
<b>Antibody titre</b>	The antiserum is standardized for use in the electroimmunodiffusion (EID, Laurell) test procedure for the quantitative determination of FVIII/VWF as described in the Nordic Recommended Working Procedure.	
<b>Intended use</b>	It is strongly recommended to perform the EID-assay with the special agarose (Agarose Nordic nr.4) Nordic High Resolution Buffer and High resolution-buffered Agarose, performance tested to assure reliable and reproducible results. The threshold of detection in this technique is about 0.15 mg per 100 ml. Haemophilia A and Von Willebrand's disease (VWD) are known to be FVIII/VWF deficiencies. Immunologic determination of VWF antigen enables to discriminate between these two bleeding conditions. Haemophilia A patients lack FVIIIIC but have a normal level of VWFag. In VWD, both FVIIIIC and VWFag are reduced. Active and inactive FVIII/VWF, its breakdown products and inactivated FVIII/VWF-inhibitor complexes all express antigen determinants of VWFag and may be recognized by polyclonal antisera. Determination of plasma VWFag levels in addition to the level of FVIIIIC can contribute also to the detection of the carrier state in haemophilia A. While the level of VWFag is normal or even elevated, the average concentration of FVIIIIC of carriers is about half of normal. Various types and subtypes of congenital VWD have been described. Cases of acquired VWD have been reported in association with several clinical diseases including autoimmune disease, systemic lupus erythematosus, benign monoclonal gammopathy and Waldenström's macroglobulinemia.	
<b>Directions for use</b>	The antiserum concentration required in the gel is normally between 1 and 2%. In immunologic determinations of FVIII/VWF, plasma samples and all assay components must contain EDTA to stabilize the proteins	
<b>Packing</b>	Vial with 1 ml lyophilized antiserum.	
<b>Storage / shelf life</b>	Lyophilized at +4°C	at least 10 years
	reconstituted at or below -20°C	3-5 years
	reconstituted at +4°C	7 days
<b>Handling</b>	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. Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.	
<b>Caution</b>	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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