VW ACTIVITY ASSAY

Description	Automated latex enhanced immunoassay for the quantitative determination of von Willebrand Factor Activity (VWF Activity) in human citrated plasma on IL Coagulation Systems.
Indication	Von Willebrand factor (vWF) is a blood glycoprotein involved in haemostasis. It is deficient or defective in von Willebrand disease and is involved in a large number of other diseases, including thrombotic thrombocytopenic purpura, and possibly hemolytic-uremic syndrome Increased plasma levels in a large numbers of cardiovascular, neoplastic and connective tissue diseases are presumed to arise from adverse changes to the endothelium, and may contribute to an increased risk of thrombosis
Additional Info	The VWF Activity kit is a latex particle enhanced immunoturbidimetric assay to quantify VWF Activity in plasma. The activity of VWF is determined by measuring the increase of turbidity produced by the agglutination of the latex reagent. A specific anti-VWF monoclonal antibody adsorbed onto the latex reagent, directed against the platelet binding site of VWF (Glycoprotein Ib receptor), reacts with the VWF of patient plasma. The degree of agglutination is directly proportional to the activity of VWF in the sample and is determined by measuring the decrease of transmitted light caused by the aggregates.
Concurrent Tests	vW Activity assay is part of the vW screen including Factor VIIIc, vW Antigen (RAG), Ristocetin Co Factor (RICOF)/(VWRCO) and collagen Binding Assay (CBA)
Interpretation	The diagnosis of von Willebrand Disease (VWD), probably the most common congenital bleeding disorder, requires a number of special tests at the laboratory level. The measurement and comparison of von Willebrand Factor Antigen(VWF:Ag), VWF Activity and Factor VIII (FVIII) levels in plasma aid in the differentiation of quantitative defects (type 1 or type 3) or qualitative defect (type2) of VWF and therefore to diagnose the different types of VWD. When an extremely low or undetectable level of VWF:Ag is obtained, a type 3VWD could be expected. If a moderate or even normal result is obtained, VWFActivity and FVIII assays must be performed and compared with the VWF:Ag result. If all three values are within the normal range, VWD and Haemophilia A maybe excluded. If at least one parameter is abnormally low, it is necessary to calculate the ratios VWF_Activity/VWF:Ag and FVIII/VWF:Ag. If both ratios are close to 1 (some authors suggest 0.7 as cut-off), a VWD type 1 may be diagnosed.
Collection Conditions	Samples must be correctly filled as the ratio of anticoagulant to blood is crucial for accurate test results. Samples will be rejected by the laboratory if they are under or over filled. Samples should arrive in the laboratory within 4 hours of blood draw. (avoid refrigeration of whole blood sample as this can reduce levels)
Frequency Of Testing	As required
Clinical AdviceContact	Haematology Registrar