

D-DIMER

Description	HemosIL D-Dimer HS 500 is an automated latex enhanced immunoassay for the quantitative determination of D-Dimer in human citrated plasma on the ACL TOP
Indication	D-Dimer is used in conjunction with a clinical pretest probability (PTP) assessment to exclude venous thromboembolism (VTE) in outpatients suspected of deep venous thrombosis (DVT) and pulmonary embolism (PE).
Additional Info	The Latex Reagent is a suspension of polystyrene latex particles of uniform size coated with the F(ab') ₂ fragment of a monoclonal antibody highly specific for the D-Dimer domain included in fibrin soluble derivatives. The use of the F(ab') ₂ fragment allows a more specific D-Dimer detection avoiding the interference of some endogenous factors like the Rheumatoid Factor. When a plasma containing D-Dimer is mixed with the Latex Reagent and the Reaction Buffer included in the HemosIL D-Dimer HS 500 kit, the coated latex particles agglutinate. The degree of agglutination is directly proportional to the concentration of D-Dimer in the sample and is determined by measuring the decrease of transmitted light caused by the aggregates (turbidimetric immunoassay).
Concurrent Tests	Pretest probability score (Usually Wells score)
Interpretation	<p>A negative D-Dimer result when combined with a clinical assessment of low pretest probability has been shown to have a high negative predictive value for DVT or PE.</p> <p>D-Dimer is contained in the soluble derivatives formed upon plasmin degradation of Factor XIIIa cross-linked fibrin. Plasmin, a serine protease, when free from inhibitors digests the insoluble cross-linked fibrin yielding a variety of soluble derivatives. Their molecular weights depend on the extent of the digestion. These soluble fibrin degradation products contain a neoantigen (D-Dimer domain) which is not present on the original fibrinogen molecule, its degradation products or on soluble fibrin. The determination of D-Dimer is becoming a widespread tool for diagnosing thrombosis and monitoring thrombolytic therapy. Elevated levels of D-Dimer are found in clinical conditions such as deep vein thrombosis (DVT), pulmonary embolism (PE) and disseminated intravascular coagulation (DIC). D-Dimer levels also rise during normal pregnancy but very high levels are associated with complications.</p>
Collection Conditions	Samples must be correctly filled as the ratio of anticoagulant to blood is necessary 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.
Frequency Of Testing	As required.
Clinical Advice/Contact	Haematology SPR