

Alpha-1 - Antitrypsin

Description	Measurement of alpha-1-Antitrypsin is useful in the investigation of emphysema and unexplained liver disease in adults. A1AT is a 55,000 mw glycoprotein synthesised in the liver and is the most important protease inhibitor in serum and plasma. A1AT constitutes the major part of the alpha1 fraction in protein electrophoresis. Patients with low A1AT will be phenotyped to determine hetero or homozygosity.
Indication	Deficiency leads to COAD, emphysema and liver disease.
Additional Info	As A1AT is a small molecule it diffuses rapidly into other body fluids including bronchial secretions.
Concurrent Tests	Alpha-1-antitrypsin phenotyping if A1AT <1.0g/L
Dietary Requirements	N/A
Interpretation	In the case of a low result (50% of normal) the A1AT phenotype will be determined. NOTE: inflammatory conditions may mask deficiency as A1AT is a positive acute phase reactant. Increased levels also occur in malignancy, pregnancy and treatment with oestrogens.
Collection Conditions	No restrictions
Frequency of testing	As required