

Autoimmune Serology

ACT Pathology offers a wide range of screening and specialised testing procedures for the detection of autoimmune diseases. Testing is performed by highly experienced scientific staff under the guidance of three Immunologists and an Immunology registrar. All unusual fluorescence patterns are referred to an Immunologist for clinical interpretation. The range of services available include:

Systemic Autoantibodies

Autoantibodies to nuclear and extractable nuclear antigens have diagnostic and prognostic significance in systemic autoimmune diseases such as SLE, rheumatoid arthritis, progressive systemic sclerosis, mixed connective tissue disease and Sjogren's syndrome. ACT Pathology offers ANA testing four days a week and follow-up confirmatory testing of antibodies to ENA and dsDNA for ANA positive patients.

Anti-phospholipid Antibodies

Anti-phospholipid antibodies are associated with thrombo-embolic disease including pulmonary embolism, deep venous thrombosis, cerebral infarction, as well as recurrent fetal loss with placental infarction.

ACT Pathology offers tests for IgG anticardiolipin and IgG β_2 glycoprotein I antibodies (analysed weekly), lupus anticoagulant (check with haematology). anticardiolipin and IgM β_2 glycoprotein I antibodies are also performed upon specific request.

Coeliac Disease Serology

Coeliac disease or gluten sensitive enteropathy is a common autoimmune disease of the small intestine triggered by gluten. Various extra-intestinal manifestations can occur, including dermatitis herpetiformis. The testing strategy for coeliac disease has changed in recent years, with the identification of tissue transglutaminase (tTG) as the target autoantigen of endomysial antibodies. Currently we recommend testing for IgA antibodies to tTG. Positive tTG results are also screened by immunofluorescence for EMA. A test for total serum IgA should be included, since IgA deficiency is more common in patients with coeliac disease, and can result in negative serology. In this situation, specialised testing for HLA antigens associated with coeliac disease can be helpful. Coeliac serology is performed weekly. HLA testing can be arranged after discussion with one of the immunologists.

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Anti-neutrophil Cytoplasmic Antibodies (ANCA)

ANCA detection is useful for diagnosing and monitoring certain systemic necrotising vasculitides, such as Wegener's granulomatosis (WG). There are at least six identified ANCA antigens. ACT Pathology offers ANCA screening three times per week, and confirmation testing for the two most common antigens, MPO and PR3.

Consider requesting ANCA when patients have one or more of the following sets of symptoms:

- General: Persistent flu-like condition with headache, myalgias, arthralgias, and weight loss.
- Ear, nose, and throat: Hearing loss that slowly develops over days to weeks without a preceding cold, but with "chronic flu-like symptoms"; slowly developing nasal stenosis with midfacial pain and increasing bloody-purulent secretion with crust formation that does not respond to antibiotics.
- Eyes: Unexplained conjunctivitis combined with general symptoms, uveitis, unilateral proptosis, and paresis of the ocular motor nerves.
- Lungs: Slowly developing cough and shortness of breath possibly with bloody-purulent sputum, bilateral infiltrates on radiography that do not respond to antibiotics, non-tuberculous cavitating lesions alveolar haemorrhage.
- Skin: Bursts of small cutaneous vasculitis elements, pyoderma gangrenosum, and oedema.
- Kidneys: Haematuria, proteinuria, hypertension, decreasing renal function.

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Others

ACT Pathology also provides investigations for the detection of other autoimmune diseases. We welcome enquiries about these tests- please call:

Professor Matthew Cook (Immunologist), 5124 4194

Dr Carolyn Hawkins (Immunologist) on 51244 3940

Dr Katrina Randall (Immunologist) on 5124 8523

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