

Division of Laboratory Medicine

Immunology

Antinuclear antibody (ANA)

General information

'Antinuclear antibody' refers to an old test for IgG against nuclear components, detected by immunofluorescence. This test has been superseded by faster, more reproducible parallel tests for each of the nuclear components, namely ENA (extractable nuclear antigens SS-A (SS-A52, SS-A60) (Ro), SS-B (La), Sm, Sm/RNP, RNP (RNPA, RNP 68), Ribo P, Chromatin, Jo-1 and Scl-70), DNA and centromere. Antibodies to extractable nuclear antigens are of use in the classification of clinical subsets of connective tissue diseases and in providing prognostic information.

When you request ANA we will perform the above tests; if any are positive this will be indicated as a positive ANA. If the specificity of the positive ANA is not indicated, please note that the laboratory can release this extra information if you contact us within two weeks of the original specimen receipt. Please see also DNA antibodies.

Specimen transport: At room temperature

Repeat frequency: Not more than once a year, unless clinical picture has changed

Special precautions: None

Laboratory information

Normal reference range: ANA – Neg, ENAs <0-0.9AI, Scl-70 0-1.6

Volume and sample type: 7ml clotted blood

Method: Multiplex flow immunoassay

Turnaround time (calendar days from sample receipt to authorised result): Median – 2

Participation in EQA Scheme: UK NEQAS for Nuclear and Related Antigens

Clinical information

Indications for the test: Suspected SLE, connective tissue disease, hepatitis or drug induced lupus.

- Anti-Ro (SS-A) - SLE, Sjögren's syndrome, neonatal lupus. In pregnancy it may cause congenital defects
- Anti-La (SS-B) - SLE, Sjögren's syndrome, neonatal lupus
- Anti-Sm - SLE
- Anti-RNP - SLE, Mixed connective tissue disease

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- Anti-Scl 70 - Progressive systemic sclerosis (generalised scleroderma)
- Anti-Jo-1 - Polymyositis, Dermatomyositis
- Anti-Ribo P - Are associated with psychiatric symptoms of SLE (5-12% of patients) and may be found in RA
- Anti-Chromatin - SLE nephritis

Factors affecting the test: May be positive due to the age of the patient or due to infection. For these reasons positive results have a low predictive value in the absence of clinical signs of the diseases indicated above. ANA should not, therefore, be used as a 'screen' in patients with vague symptoms and signs.

ICE reference: Anti-Nuclear Antibodies, ENA Antibodies

(Last updated February 2021)