



ANA Anti-Nuclear Antigen Testing

Laboratory Alliance of Central New York offers ANA testing by multiplex bead immunoassay. This is a highly automated assay using state of the art technology that permits simultaneous detection and identification of many antibodies in a single analysis. Thirteen (13) different populations of dyed beads are coated with antigens associated with systemic autoimmune disease.

1. dsDNA
2. Chromatin
3. Ribosomal P
- 4a. SSA-60*
- 4b. SSA-52*
5. SSB
6. Sm
7. SmRNP
- 8a. RNP A*
- 8b. RNP 68*
9. Sci-70
10. Jo-1
11. Centromere B

The BioPlex 2200 System combines an aliquot of patient sample, sample diluent, and bead set reagent into a reaction vessel. The identity of the dyed beads is determined by the fluorescence of the dyes, and the amount of antibody captured by the antigen on the dyed bead is determined by the fluorescence of an attached marker (phycoerythrin). Three additional dyed beads, Internal Standard Bead (ISB), Serum Verification Bead (SVB) and a Reagent Blank Bead (RBB) are present in each reaction mixture to verify detector response, the addition of serum or plasma to the reaction vessel and the absence of significant non-specific binding in serum or plasma.

A **positive** response from any of the 13 populations of beads is interpreted as a **positive** ANA screen. If ordered as an ANA w/Reflex, individual results are then reported for each of the 11 individual reported antibodies to nuclear antigens.

***Note** that positive results for either SSA-60 or SSA-52 will be reported as positive SSA and that positive results for either RNP A or RNP 68 will be reported as positive RNP. Therefore, 11 results will be reported from 13 populations of beads.

- Anti-dsDNA results are reported numerically in IU/mL.
- All of the other antibodies are reported as positive or negative.

When ordering an ANA w/Reflex (cascade), it is not necessary to order any of the individual antibodies. Because any one positive response will trigger reporting of all 11 reported antibodies, it is preferable to let the cascade order the reflexive testing. Although not reported individually, if the screen is **negative**, all of the **13 individual antibodies are also negative**.

ANA is also offered as a **screen** only. Even if **positive**, no additional testing is reflexively ordered. The testing, however, is exactly the same as the ANA w/Reflex (cascade) and therefore, results have been generated by the initial screen and can be reported upon request for up to 30 days after the initial testing.

Also available is a panel of Extractable Nuclear Antigens (ENA). This subset of anti-nuclear antigens is comprised of antibodies to SSA, SSB, RNP, Sm, Scl and Jo-1 antigens. The testing is the same as the ANA screen, and therefore, results of the remaining 7 antibodies will be available on request for up to 30 days.

See table below for details on ordering any of the ANA-related testing available from Laboratory Alliance of CNY.

Test Name	Test Code	CPT Code	Schedule of Testing	Specimen Requirements
ANA (antinuclear antibody) Screen Only	ANAS	86038	Mon – Fri	1 gold top, 2 mL serum Stable 7 days at 2 - 8°C
ANA (antinuclear antibody) w/Reflex (cascade) (If positive, reflexively orders all 11 individually reported antibodies)	ANACS	86308, if reflexed, 86225, 86235x10	Mon – Fri	1 gold top, 2 mL serum Stable 7 days at 2 - 8°C
Extractable Nuclear Antigens	ENA	86235 X6	Mon – Fri	1 gold top, 2 mL serum Stable 7 days at 2 - 8°C

Questions regarding ANA testing may be directed to Jeffrey DeGroat, AS, MT, Chemistry Manager, at 315-410-7028 or jeffdegroat@lacny.com.