Test Definition: SSAB

SSA/SSB

Overview

Useful For

Evaluating patients with signs and symptoms of a connective tissue disease in whom the test for antinuclear antibodies is positive, especially those with signs and symptoms consistent with Sjogren syndrome or lupus erythematosus

This test is **not useful** in patients without demonstrable antinuclear antibodies.

Profile Information

Test ID	Reporting Name	Available Separately	Always Performed
SSA	SS-A/Ro Ab, IgG, S	Yes	Yes
SSB	SS-B/La Ab, IgG, S	Yes	Yes

Testing Algorithm

See Connective Tissue Disease Cascade (CTDC) in Special Instructions.

Special Instructions

- Connective Tissue Disease Cascade (CTDC)

Method Name

Multiplex Flow Immunoassay

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Specimen Volume:0.5 mL

Specimen Minimum Volume

0.35 mL

Reject Due To

Gross hemolysis	Reject

Gross lipemia	Reject
Gross icterus	OK

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	21 days	
	Frozen	21 days	

Clinical and Interpretive

Clinical Information

Sjogren syndrome (SS)A (Ro), SSB (La), ribonucleoprotein (RNP), and Smith (Sm) proteins are autoantigens commonly referred to as extractable nuclear antigens (ENA). Antibodies to ENA are common in patients with connective tissue diseases (systemic rheumatic diseases).

SSA or Ro is composed of protein antigens of 52 kD and 60 kD combined with cytoplasmic RNA species. SSA antibodies occur in patients with several different connective tissue diseases including Sjogren syndrome, an autoimmune disease that involves primarily the salivary and lachrymal glands (up to 90% of cases); systemic lupus erythematosus (SLE) (40%-60% of cases); and rheumatoid arthritis. SSA antibodies are associated with childhood SLE, neonatal SLE, and with congenital heart block in infants born to mothers with SLE.(1,2) SSA antibodies have also been reported to be associated with features of extraglandular inflammation in patients with SLE including vasculitis, purpura, cytopenias, and adenopathy.

SSB or La is composed of a 48-kD protein combined with RNA species. SSB antibodies are found primarily in patients with Sjogren syndrome or SLE, where they occur with frequencies of approximately 60% and 15%, respectively.(1,2) SSB antibodies occur only infrequently in the absence of SSA antibodies.

See Connective Tissue Disease Cascade (CTDC) in Special Instructions.

Reference Values

SS-A/Ro ANTIBODIES, IgG

<1.0 U (negative)

> or =1.0 U (positive)

Reference values apply to all ages.

SS-B/La ANTIBODIES, IgG

<1.0 U (negative)

> or =1.0 (positive)

Reference values apply to all ages.

Interpretation

A positive result for SSA (Ro) or SSB (La) antibodies is consistent with connective tissue disease, including Sjogren syndrome, lupus erythematosus (LE), or rheumatoid arthritis.

A positive result for SSA antibodies in a woman with LE prior to delivery indicates an increased risk of congenital heart block in the neonate.

Cautions

No significant cautionary statements

Clinical Reference

1. Homburger H, Larsen S: Detection of specific antibodies. In: Rich R, Fleisher T, Schwartz B, et al, eds. Clinical Immunology: Principles and Practice. Mosby-Year Book; 1996:2096-2109

2. Kotzin B, West S: Systemic lupus erythematosus. In: Rich R, Fleisher T, Shearer E, et al, eds. Clinical Immunology Principles and Practice. 2nd ed. Mosby-Year Book; 2001:60.1-60.24

3. Rifai N, Horvath AR, Wittwer CT, eds: Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. 6th ed. Elsevier; 2018

Performance

Method Description

Recombinant SS-A/Ro 52 kD, affinity-purified SS-A/Ro 60 kD, and affinity-purified SS-B antigen are coupled covalently to polystyrene microspheres that are impregnated with fluorescent dyes to create a unique fluorescent signature. SS-A/Ro antibodies, if present in diluted serum, bind to the SS-A/Ro antigens on the microspheres, and SS-B/La antibodies, if present, bind to the SS-B antigen on the microspheres. The microspheres are washed to remove extraneous serum proteins. Phycoerythrin (PE)-conjugated antihuman IgG antibody is then added to detect IgG anti-SS-A/Ro or anti-SS-B/La bound to the microspheres. The microspheres are washed to remove unbound conjugate, and bound conjugate is detected by laser photometry. A primary laser reveals the fluorescent signature of each microsphere to distinguish it from microspheres that are labeled with other antigens, and a secondary laser reveals the level of PE fluorescence associated with each microsphere. Results are calculated by comparing the median fluorescence response for SS-A/Ro and SS-B/La microspheres to a 4-point calibration curve.(Package insert: Bioplex 2200 ANA Screen. Bio-Rad Laboratories, Hercules, CA 11/2011)

PDF Report

No

Day(s) Performed

Monday through Saturday

Report Available

Same day/1 to 3 days

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification

This test has been cleared, approved or is exempt by the U.S. Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

86235 x 2

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
SSAB	SSA/SSB	87555-9

Result ID	Test Result Name	Result LOINC Value
SSA	SS-A/Ro Ab, IgG, S	33610-7
SSB	SS-B/La Ab, IgG, S	33613-1