

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: 1/17/1970
Sex: Male
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 01/01/2017 12:34

Antinuclear Antibody (ANA) with HEp-2 Substrate, IgG by IFA with Reflex by Pattern

ARUP test code 3000601

Antinuclear Antibody (ANA), HEp-2, IgG	Detected	*	(Ref Interval: <1:80)
ANA Interpretive Comment	<p>See Note</p> <p>Speckled Pattern</p> <p>Clinical associations: SLE, SSC, SJS, DM, PM, MCTD, UCTD. May also be found in healthy individuals</p> <p>Main autoantibodies: Anti-SSA-52 (Ro52), anti-SSA-60 (Ro60), anti-SS-B/LA, anti-Topo-1 (anti-Scl-70), Smith, anti-U1-RNP, anti-U2-RNP, anti-Mi-2, anti-p155/140 (TIF1g), anti-Ku, anti-RNA polymerase, anti-DFS70/LEDGF-P75</p> <p>List of Abbreviations</p> <p>Antisynthetase syndrome (ARS), chronic active hepatitis (CAH), inflammatory myopathies (IM) [dermatomyositis (DM), polymyositis (PM), necrotizing autoimmune myopathy (NAM)], interstitial lung disease (ILD), juvenile idiopathic arthritis (JIA), mixed connective tissue disease (MCTD), primary biliary cholangitis (PBC), rheumatoid arthritis (RA), systemic autoimmune rheumatic diseases (SARD), Sjogren syndrome (SJS), systemic lupus erythematosus (SLE), systemic sclerosis (SSc), undifferentiated connective tissue disease (UCTD).</p> <p>INTERPRETIVE INFORMATION: ANA Interpretive Comment</p> <p>Presence of antinuclear antibodies (ANA) is a hallmark feature of systemic autoimmune rheumatic diseases (SARD). However, ANA lacks diagnostic specificity and is associated with a variety of diseases (cancers, autoimmune, infectious, and inflammatory conditions) and may also occur in healthy individuals in varying prevalence. The lack of diagnostic specificity requires confirmation of positive ANA by more specific serologic tests. ANA (nuclear reactivity) positive patterns reported include centromere, homogeneous, nuclear dots, nucleolar, or speckled. ANA (cytoplasmic reactivity) positive patterns reported include reticular/AMA, discrete/GW body-like, polar/golgi-like, cytoplasmic speckled or rods and rings. All positive patterns are reported to endpoint titers (1:2560). Reported patterns may help guide differential diagnosis, although they may not be specific for individual antibodies or diseases. Mitotic staining patterns not reported. Negative results do not necessarily rule out SARD.</p>		

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 22-095-112602
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
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Antinuclear Antibody (ANA) with HEp-2 Substrate, IgG by IFA, Single Pattern (Reflex for 3000601 ANA AB PAT Only Not Orderable by Clients)

ARUP test code 3000602

ANA Pattern	Speckled	*
ANA Titer	1:160	*

Double-Stranded DNA (dsDNA) Antibody, IgG by ELISA with Reflex to dsDNA Antibody, IgG by IFA

ARUP test code 0050215

Double-Stranded DNA (dsDNA) Ab IgG ELISA	4 IU	(Ref Interval: 0-24)
<p>INTERPRETIVE INFORMATION: Double-Stranded DNA (dsDNA) Ab IgG ELISA</p> <p>24 IU or less.....Negative 25-30 IU.....Borderline Positive 30-60 IU.....Low Positive 60-200 IU.....Positive 201 IU or greater....Strong Positive</p> <p>Positivity for anti-double stranded DNA (anti-dsDNA) IgG antibody is a diagnostic criterion of systemic lupus erythematosus (SLE). Specimens are initially screened by enzyme-linked immunosorbent assay (ELISA). If ordered as reflex (0050215), positive ELISA results (>24 IU) will be reflexed to a highly specific IFA titer (Crithidia luciliae indirect fluorescent test [CLIFT]) for confirmation. Some patients with early or inactive SLE may be positive for anti-dsDNA IgG by ELISA but negative by CLIFT. If the patient is negative by CLIFT but positive by ELISA and clinical suspicion remains, consider antinuclear antibody (ANA) testing by IFA. Additional information and recommendations for testing may be found at https://arupconsult.com/content/systemic-lupus-erythematosus.</p>		

Scleroderma (Scl-70) (ENA) Antibody, IgG

ARUP test code 0050599

Scleroderma (Scl-70) (ENA) Antibody, IgG	2 AU/mL	(Ref Interval: 0-40)
<p>INTERPRETIVE INFORMATION: Scleroderma (Scl-70) (ENA) Ab, IgG</p> <p>29 AU/mL or Less Negative 30 - 40 AU/mL Equivocal 41 AU/mL or Greater Positive</p> <p>The presence of Scl-70 antibodies (also referred to as topoisomerase I, topo-I or ATA) is considered diagnostic for systemic sclerosis (SSc). Scl-70 antibodies alone are detected in about 20 percent of SSc patients and are associated with the diffuse form of the disease, which may include specific organ involvement and poor prognosis. Scl-70 antibodies have also been reported in a varying percentage of patients with systemic lupus erythematosus (SLE). Scl-70 (topo-I) is a DNA binding protein and anti-DNA/DNA complexes in the sera of SLE patients may bind to topo-I, leading to a false-positive result. The presence of Scl-70 antibody in sera may also be due to contamination of recombinant Scl-70 with DNA derived from cellular material used in immunoassays. Strong clinical correlation is recommended if both Scl-70 and dsDNA antibodies are detected.</p>		

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Negative results do not necessarily rule out the presence of SSC. If clinical suspicion remains, consider further testing for centromere, RNA polymerase III and U3-RNP, PM/Scl, or Th/To antibodies.

Smith (ENA) Antibody, IgG

ARUP test code 0050085

Smith (ENA) Antibody, IgG

0 AU/mL

(Ref Interval: 0-40)

INTERPRETIVE INFORMATION: Smith (ENA) Antibody, IgG

29 AU/mL or Less Negative
30 - 40 AU/mL Equivocal
41 AU/mL or Greater Positive

Smith antibody is highly specific (greater than 90 percent) for systemic lupus erythematosus (SLE) but only occurs in 30-35 percent of SLE cases. The presence of antibodies to Smith has variable associations with SLE clinical manifestations.

SSB (La) (ENA) Antibody, IgG

ARUP test code 0050692

SSB (La) (ENA) Antibody, IgG

0 AU/mL

(Ref Interval: 0-40)

INTERPRETIVE INFORMATION: SSB (La) (ENA) Ab, IgG

29 AU/mL or Less Negative
30 - 40 AU/mL Equivocal
41 AU/mL or Greater Positive

SSB (La) antibody is seen in 50-60% of Sjogren syndrome cases and is specific if it is the only ENA antibody present. 15-25% of patients with systemic lupus erythematosus (SLE) and 5-10% of patients with progressive systemic sclerosis (PSS) also have this antibody.

SSA 52 and 60 (Ro) (ENA) Antibodies, IgG

ARUP test code 2012074

SSA-52 (Ro52) (ENA) Antibody, IgG

0 AU/mL

(Ref Interval: 0-40)

INTERPRETIVE INFORMATION: SSA-52 (Ro52) (ENA) Antibody, IgG

29 AU/mL or Less Negative
30 - 40 AU/mL Equivocal
41 AU/mL or Greater Positive

SSA-52 (Ro52) and/or SSA-60 (Ro60) antibodies are associated with a diagnosis of Sjogren syndrome, systemic lupus erythematosus (SLE), and systemic sclerosis. SSA-52 antibody overlaps significantly with the major SSC-related antibodies. SSA-52 (Ro52) antibody occurs frequently in patients with inflammatory myopathies, often in the presence of interstitial lung disease.

SSA-60 (Ro60) (ENA) Antibody, IgG

0 AU/mL

(Ref Interval: 0-40)

REFERENCE INTERVAL: SSA-60 (Ro60) (ENA) Antibody, IgG

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29 AU/mL or Less Negative
30 - 40 AU/mL Equivocal
41 AU/mL or Greater Positive

Chromatin Antibody, IgG

ARUP test code 2005287

Chromatin Antibody, IgG

4 Units (Ref Interval: 0-19)

INTERPRETIVE INFORMATION: Chromatin Antibody, IgG

19 Units or less: Negative
20 - 60 Units: Moderate Positive
61 Units or greater: Strong Positive

The presence of anti-chromatin antibodies may be useful in the diagnosis of systemic lupus erythematosus (SLE) or drug-induced lupus (DIL) and have been reported to be predictive of lupus nephritis, especially when antibody levels are high.

Smith/RNP (ENA) Antibody, IgG

ARUP test code 0050470

Smith/RNP (ENA) Ab, IgG

4 Units (Ref Interval: 0-19)

INTERPRETIVE INFORMATION: Smith/RNP (ENA) Antibody, IgG

19 Units or Less Negative
20 to 39 Units Weak Positive
40 to 80 Units Moderate Positive
81 Units or greater Strong Positive

Smith/RNP antibodies are frequently seen in patients with mixed connective tissue disease (MCTD) and are also associated with other systemic autoimmune rheumatic diseases (SARDs) such as systemic lupus erythematosus (SLE), systemic sclerosis, and myositis. Antibodies targeting the Smith/RNP antigenic complex also recognize Smith antigens, therefore, the Smith antibody response must be considered when interpreting these results.

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Double-Stranded DNA (dsDNA) Ab IgG ELISA	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:10 PM	4/8/2022 12:47:00 AM
Smith (ENA) Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:09 PM	4/8/2022 3:49:00 PM
SSA-52 (Ro52) (ENA) Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:09 PM	4/8/2022 3:49:00 PM
SSA-60 (Ro60) (ENA) Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:09 PM	4/8/2022 3:49:00 PM
Smith/RNP (ENA) Ab, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:10 PM	4/9/2022 1:17:00 PM
SSB (La) (ENA) Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:09 PM	4/8/2022 3:49:00 PM
Scleroderma (Scl-70) (ENA) Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:10 PM	4/8/2022 3:49:00 PM
Chromatin Antibody, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:10 PM	4/8/2022 4:47:00 PM
Antinuclear Antibody (ANA), HEp-2, IgG	22-095-112602	4/5/2022 12:22:00 PM	4/6/2022 12:32:20 PM	4/7/2022 4:30:00 PM
ANA Pattern	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:04 PM	4/7/2022 4:30:00 PM

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ANA Titer	22-095-112602	4/5/2022 12:22:00 PM	4/7/2022 4:30:04 PM	4/7/2022 4:30:00 PM
ANA Interpretive Comment	22-095-112602	4/5/2022 12:22:00 PM	4/6/2022 12:32:20 PM	4/7/2022 4:30:00 PM

END OF CHART

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