ARUP Laboratories
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Director of Laboratories

*****Example Report*****

Patient Age/Gender: 66 years Male
Printed: 13-Dec-16 08:57:01

Procedure	Result	Units	Ref Interval	Accession	Collected	Received	Reported/ Verified
Rheumatoid Factor	**91 H**	IU/mL	[0-14]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:38:23
Anti-Nuclear Antibody (ANA), IgG by IFA	**1:160 ***		[<1:40]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
SSA 52 (Ro) (ENA) Antibody, IgG	0	AU/mL	[0-40]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
SSA 60 (Ro) (ENA) Antibody, IgG	1	AU/mL	[0-40]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
Jo-1 (Histidyl-tRNA Synthetase) Ab, IgG	1	AU/mL	[0-40]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
PL-12 (alanyl-tRNA synthetase) Antibody	Negative		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
PL-7 (threonyl-tRNA synthetase) Antibody	**Positive ***		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
EJ (glycyl-tRNA synthetase) Antibody	Negative		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
OJ (isoleucyl-tRNA synthetase) Antibody	Negative		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
Ku Antibody	Negative		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
PM/Scl 100 Antibody, IgG	**Borderline ***		[Negative]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
MDA5 (CADM-140) Antibody	Negative			16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
NXP-2 (Nuclear matrix protein-2) Ab	Negative			16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
Interpretive Information	See Note			16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
Scleroderma (Scl-70) (ENA) Antibody, IgG	2	AU/mL	[0-40]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45
Cyclic Citrullinated Peptide Ab, IgG	**142 H**	Units	[0-19]	16-301-900131	27-Oct-16 15:22:00	27-Oct-16 15:22:00	27-Oct-16 16:39:45

27-Oct-16 15:22:00 Anti-Nuclear Antibody (ANA), IgG by IFA
Mixed Homogeneous and Speckled pattern.

27-Oct-16 15:22:00 MDA5 (CADM-140) Antibody
MDA-5 antibody negative by line immunoassay. No band corresponding to 140 KDa observed by immunoprecipitation.

27-Oct-16 15:22:00 NXP-2 (Nuclear matrix protein-2) Ab
NXP-2 antibody negative by line immunoassay. No band corresponding to 140 KDa observed by immunoprecipitation.

27-Oct-16 15:22:00 Anti-Nuclear Antibody (ANA), IgG by IFA:
INTERPRETIVE INFORMATION: ANA by IFA, IgG

Anti-nuclear antibodies (ANA) are seen in a variety of systemic rheumatic diseases and are determined by indirect fluorescence assay (IFA) using HEp-2 substrate with an IgG-specific conjugate. ANA titers less than or equal to 1:80 have variable relevance while titers greater than or equal to 1:160 are considered clinically significant. These antibodies may precede clinical disease onset; however, healthy individuals and those with advanced age have been reported to be positive for ANA. When observed, one of the five basic patterns is reported: homogeneous, peripheral/rim, speckled, centromere, or nucleolar. If cytoplasmic fluorescence is observed, it is noted. IFA methodology is subjective and has occasionally been shown to lack sensitivity for anti-SSA/Ro antibodies.

Negative results do not necessarily rule out the presence of SSc. If clinical suspicion remains, consider further testing for U3-RNP, PM/Scl, or Th/To antibodies associated with SSc.

27-Oct-16 15:22:00 SSA 52 (Ro) (ENA) Antibody, IgG:
INTERPRETIVE INFORMATION: SSA (Ro) (ENA) Ab, IgG

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

SSA (Ro) antibody is seen in 70-75 percentage of Sjogren syndrome cases, 30-40% of systemic lupus erythematosus (SLE) and 5-10 percentage of progressive systemic sclerosis (PSS).

27-Oct-16 15:22:00 SSA 60 (Ro) (ENA) Antibody, IgG:

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

27-Oct-16 15:22:00 Jo-1 (Histidyl-tRNA Synthetase) Ab, IgG:
INTERPRETIVE INFORMATION: Jo-1 Antibody, IgG

29 AU/mL or less.....Negative
30-40 AU/mL.....Equivocal
41 AU/mL or greater.....Positive

27-Oct-16 15:22:00 PM/Scl 100 Antibody, IgG:
INTERPRETIVE INFORMATION: PM/Scl-100 Antibody, IgG by
Immunoblot
The presence of PM/Scl-100 IgG antibody along with a positive ANA IFA nucleolar pattern is associated with connective tissue diseases such as polymyositis (PM), dermatomyositis (DM), systemic sclerosis (SSc), and polymyositis/systemic sclerosis overlap syndrome. The clinical relevance of PM/Scl-100 IgG antibody with a negative ANA IFA nucleolar pattern is unknown. PM/Scl-100 is the main target epitope of the PM/Scl complex, although antibodies to other targets not detected by this assay may occur.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement D: aruplab.com/CS

27-Oct-16 15:22:00 Interpretive Information:
INTERPRETIVE INFORMATION: Interstitial Lung Disease Panel

If present, myositis-specific antibodies (MSA) are specific for myositis, and may be useful in establishing diagnosis as well as prognosis. MSAs are generally regarded as mutually exclusive with rare exceptions; the occurrence of two or more MSAs should be carefully evaluated in the context of patient's clinical presentation. Myositis-associated antibodies (MAA) may be found in patients with CTD including overlap syndromes, and are generally not specific for myositis. The following table will help in identifying the association of any antibodies found as either MSAs or MAAs.

Antibody Specificity	MSA	MAA
SSA 52 (Ro) (ENA) Antibody IgG		X
SSA 60 (Ro) (ENA) Antibody IgG		X

Ribonucleic Protein (U1) (ENA) Ab, IgG	X
Jo-1 (histidyl-tRNA synthetase) Ab, IgG	X
PL-12 (alanyl-tRNA synthetase) Antibody	X
PL-7 (threonyl-tRNA synthetase) Antibody	X
EJ (glycyl-tRNA synthetase) Antibody	X
OJ (isoleucyl-tRNA synthetase) Antibody	X
SRP (Signal Recognition Particle) Ab	X
Ku Antibody	X
PM/SCL 100 Antibody, IgG	X
U2 sn (small nuclear) RNP Antibody	X
Fibrillarin (U3 RNP) Ab, IgG	X
Mi-2 (nuclear helicase protein) Antibody	X
P155/140 (TIF1-y) Antibody	X
TIF1-gamma Antibody	X
SAE1 (SUMO activating enzyme) Antibody	X
MDA5 (CADM-140) Antibody	X
NXP-2 (Nuclear matrix proten-2) Ab	X

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement D: aruplab.com/CS

27-Oct-16 15:22:00 Scleroderma (Scl-70) (ENA) Antibody, IgG:
INTERPRETIVE INFORMATION: Scleroderma (Scl-70) (ENA) Ab, IgG

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

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-1) 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.

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.

27-Oct-16 15:22:00 Cyclic Citrullinated Peptide Ab, IgG:
INTERPRETIVE INFORMATION: Cyclic Citrullinated Peptide Antibody, IgG

19 Units or less	Negative
20-39 Units	Weak Positive
40-59 Units	Moderate Positive
60 Units or greater	Strong Positive

Anti-cyclic citrullinated peptide (anti-CCP), IgG antibodies are present in about 69-83 percent of patients with rheumatoid arthritis (RA) and have specificities of 93-95 percent. These autoantibodies may be present in the preclinical phase of disease, are associated with future RA development, and may predict radiographic joint destruction. Patients with weak positive results should be monitored and testing repeated.