

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 1/3/1942  
**Gender:** Male  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Lupus Anticoagulant Reflex Panel**

ARUP test code 3017009

Prothrombin Time (PT)	14.4 s		(Ref Interval: 12.0-15.5)
PTT-LA Ratio	<b>2.59</b>	<b>H</b>	(Ref Interval: <=1.20)
dRVVT Screen Ratio	<b>1.21</b>	<b>H</b>	(Ref Interval: <=1.20)
Anti-Xa Qualitative Interpretation	Present		(Ref Interval: Not Present)
Thrombin Time (TT)	<b>72.2 s</b>	<b>H</b>	(Ref Interval: <=19.5)
Anticoagulant Medication Neutralization	Hepzyme		(Ref Interval: Not Performed)
Neutralized PTT-LA Ratio	<b>1.35</b>	<b>H</b>	(Ref Interval: <=1.20)
Neutralized dRVVT Screen Ratio	<b>1.26</b>	<b>H</b>	(Ref Interval: <=1.20)
dRVVT 1:1 Mix Ratio	1.19		(Ref Interval: <=1.20)
dRVVT Confirmation Ratio	0.95		(Ref Interval: <=1.20)

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

Hexagonal Phospholipid Confirmation **15.3 s H** (Ref Interval: <=7.9)

Lupus Anticoagulant, Interpretation See Note

Lupus anticoagulant detected in a sample treated to remove anticoagulant medications.

This panel detected evidence for an anticoagulant medication (heparin, direct thrombin inhibitor, or direct Xa inhibitor) and drug neutralization was performed. Presence of these anticoagulant medications in concentrations exceeding the capacity of the neutralizing reagent, or presence of warfarin effect, may still result in interference in lupus anticoagulant assays. Lupus anticoagulant testing is optimally performed in the absence of anticoagulant medications to avoid erroneous results (J Thromb Haemost. 2020; 18:1569-1575).

Testing on two or more occasions at least 12 weeks apart is recommended to confirm persistently positive results (J Thromb Haemost. 2020; 18:2828-2839). Lupus anticoagulant testing is best performed when the patient is not acutely ill and not anticoagulated since acute inflammation or high concentrations of anticoagulant medications may lead to erroneous results. Consider testing for cardiolipin and beta-2 glycoprotein 1 antibodies (IgG and IgM) if this testing has not already been performed.

Current guidelines vary regarding use of mixing studies for lupus anticoagulant identification. The interpretation of "lupus anticoagulant detected" was generated due to a prolonged aPTT and/or DRVVT that demonstrated phospholipid dependence in the confirmatory assay(s). Multiple or severe factor deficiencies (including warfarin therapy) and specific factor inhibitors may result in false positive results in lupus anticoagulant assays. If clinically indicated, consider performing factor assays and/or specific factor inhibitor assays for further evaluation.

INTERPRETIVE INFORMATION: Lupus Anticoagulant Reflex Panel

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

### Antiphospholipid Syndrome Reflex Panel

ARUP test code 3017157

Testing Summary See Note

See individual results for interpretive data. Panel components include Beta-2 Glycoprotein 1 Antibodies, IgG and IgM (0050321); Cardiolipin Antibodies, IgG and IgM (0099344); and Lupus Anticoagulant Reflex Panel (3017009).

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

INTERPRETIVE INFORMATION: Antiphospholipid Syndrome Reflex Panel

See individual components

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

**Beta-2 Glycoprotein 1 Antibodies, IgG and IgM**

ARUP test code 0050321

B2Glycoprotein 1, IgG Antibody	13 SGU	(Ref Interval: <=20)
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B2Glycoprotein 1, IgM Antibody	<10 SMU	(Ref Interval: <=20)
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INTERPRETIVE INFORMATION: B2Glycoprotein I, IgG and IgM Antibody

The persistent presence of IgG and/or IgM beta 2 glycoprotein I (B2GPI) antibodies is a laboratory criterion for the diagnosis of antiphospholipid syndrome (APS). Persistence is defined as moderate or high levels of IgG and/or IgM B2GPI antibodies detected in two or more specimens drawn at least 12 weeks apart (J Throm Haemost. 2006;4:295-306). B2GPI results greater than 20 SGU (IgG) and/or SMU (IgM) are considered positive based on the cutoff values established for this test. International reference materials and consensus units for anti-B2GPI antibodies have not been established (Clin Chim Acta. 2012;413(1-2):358-60; Arthritis Rheum. 2012;64(1):1-10.); results can be variable between different commercial immunoassays and cannot be compared. Strong clinical correlation is recommended for a diagnosis of APS. Low positive IgG and IgM B2GPI antibody levels should be interpreted in light of APS-specific clinical manifestations and/or other criteria phospholipid antibody tests.

**Cardiolipin Antibodies, IgG and IgM**

ARUP test code 0099344

Cardiolipin Antibody IgG	<10 GPL	(Ref Interval: <=14)
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INTERPRETIVE INFORMATION: Anti-Cardiolipin IgG Ab

<=14 GPL: Negative  
15-19 GPL: Indeterminate  
20-80 GPL: Low to Moderately Positive  
81 GPL or above: High Positive

The persistent presence of IgG and/or IgM cardiolipin (CL) antibodies in moderate or high levels (greater than 40 GPL and/or greater than 40 MPL units) is a laboratory criterion for the diagnosis of antiphospholipid syndrome (APS). Persistence is defined as moderate or high levels of IgG and/or IgM CL antibodies detected in two or more specimens drawn at least 12 weeks apart (J Throm Haemost. 2006;4:295-306). Lower positive levels of IgG and/or IgM CL antibodies (above cutoff but less than 40 GPL and/or less than 40 MPL units) may occur in patients with the clinical symptoms of APS; therefore, the actual significance of these levels is undefined. Results should not be used alone for diagnosis and must be interpreted in light of APS-specific clinical manifestations and/or other criteria phospholipid antibody tests.

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

Cardiolipin Antibody IgM

<10 MPL

(Ref Interval: <=12)

INTERPRETIVE INFORMATION: Anti-Cardiolipin IgM

<=12 MPL: Negative

13-19 MPL: Indeterminate

20-80 MPL: Low to Moderately Positive

81 MPL or above: High Positive

The persistent presence of IgG and/or IgM cardiolipin (CL) antibodies in moderate or high levels (greater than 40 GPL and/or greater than 40 MPL units) is a laboratory criterion for the diagnosis of antiphospholipid syndrome (APS). Persistence is defined as moderate or high levels of IgG and/or IgM CL antibodies detected in two or more specimens drawn at least 12 weeks apart (J Throm Haemost. 2006;4:295-306). Lower positive levels of IgG and/or IgM CL antibodies (above cutoff but less than 40 GPL and/or less than 40 MPL units) may occur in patients with the clinical symptoms of APS; therefore, the actual significance of these levels is undefined. Results should not be used alone for diagnosis and must be interpreted in light of APS-specific clinical manifestations and/or other criteria phospholipid antibody tests.

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

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Prothrombin Time (PT)	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
PTT-LA Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
dRVVT Screen Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Anti-Xa Qualitative Interpretation	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Thrombin Time (TT)	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Anticoagulant Medication Neutralization	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Neutralized PTT-LA Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Neutralized dRVVT Screen Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
dRVVT 1:1 Mix Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
dRVVT Confirmation Ratio	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Hexagonal Phospholipid Confirmation	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Lupus Anticoagulant, Interpretation	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Testing Summary	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
B2Glycoprotein 1, IgG Antibody	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
B2Glycoprotein 1, IgM Antibody	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cardiolipin Antibody IgG	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cardiolipin Antibody IgM	24-050-105629	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

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: 24-050-105629  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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