## Overview

### Useful For

Confirming or excluding the presence of lupus anticoagulant (LAC), distinguishing LAC from specific coagulation factor inhibitors and nonspecific inhibitors

Investigating a prolonged activated thromboplastin time, especially when combined with other coagulation studies

This test is **not useful for** the detection of antiphospholipid antibodies that do not affect coagulation tests. We recommend separate testing for serum phospholipid (cardiolipin) antibodies.

### Profile Information

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<tr>
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<tr>
<td>PTSC</td>
<td>Prothrombin Time (PT), P</td>
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<tr>
<td>APTSC</td>
<td>Activated Partial Thromboplastin Time, P</td>
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<tr>
<td>DRV1</td>
<td>Dilute Russells Viper Venom Time, P</td>
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### Reflex Tests

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<td>Coag Factor VIII Assay Inhib Scrn, P</td>
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<td>Coag Factor V Assay, P</td>
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<td>Coag Factor VII Assay, P</td>
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### Test Definition: ALUPP  
Lupus Anticoagulant Prof

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<td>DRVVT Mix</td>
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### Testing Algorithm

Initial testing includes: prothrombin time (PT), activated partial thromboplastin time (APTT), and dilute Russell viper venom time (DRVVT).

If the PT, APTT, and DRVVT are normal, a computer-generated interpretive comment indicating no evidence of a lupus anticoagulant will be provided.

If PT is >13.9 seconds, PT mix will be performed at an additional charge.

If APTT is > or =38 seconds, APTT mix will be performed at an additional charge.

If PT, APTT, or DRVVT are prolonged, thrombin time (TT) will be performed at an additional charge.

If APTT mix is > or =38 seconds and thrombin time is <35.0 seconds (no evidence of heparin), platelet neutralization procedure will be performed at an additional charge.

If DRVVT ratio is > or =1.20, DRVVT mix and DRVVT confirmation will be performed at an additional charge.

If TT is > or =25.0 seconds, reptilase will be performed at an additional charge.
If appropriate, coagulation factor assays, fibrinogen, D-dimer, Staclot LA, and soluble fibrin monomer will be performed to clarify a significant abnormality in the screen test results at an additional charge.

If the factor VIII, IX or V result is below the normal range, the factor inhibitor screen may be performed along with the Bethesda titering assay, if indicated, at an additional charge.

If any test results are abnormal, all results will be reviewed by a coagulation consultant and a Lupus Anticoagulant Interpretation will be provided.

See Lupus Anticoagulant Profile Testing Algorithm in Special Instructions.

Special Instructions
- Coagulation Guidelines for Specimen Handling and Processing
- Coagulation Patient Information
- Lupus Anticoagulant Profile Testing Algorithm
- Coagulation Profile Comparison

Method Name
PTSC, APTSC, DRV1: Optical Clot-Based

NY State Available
Yes

Specimen

Specimen Type
Plasma Na Cit

Ordering Guidance
Multiple coagulation profile tests are available. See Coagulation Profile Comparison in Special Instructions for testing that is performed with each profile.

Shipping Instructions
Send the aliquots in the same shipping container.

Necessary Information
1. If priority specimen, mark request form, give reason, and request a call-back.

2. Note if patient is currently receiving anticoagulant (eg, heparin, Coumadin [warfarin]) treatment.

Specimen Required

Patient Preparation:

1. Patient should not be receiving anticoagulant treatment (eg, warfarin, heparin). Treatment with heparin causes false-positive results of in vitro coagulation testing for lupus anticoagulant. Coumadin (warfarin) treatment may impair ability to detect the more subtle varieties of lupus-like anticoagulants.

2. Patient should also not be receiving fibrinolytic agents (streptokinase, urokinase, tissue plasminogen activator: tPA).

3. If patient has been recently transfused, it is best to perform this study pretransfusion, if possible.
Specimen Type: Platelet-poor plasma

Collection Container/Tube: Light-blue top (citrate)

Submission Container/Tube: Plastic vials

Specimen Volume: 4 mL in 4 plastic vials each containing 1 mL

Collection Instructions:
1. Specimen must be collected prior to factor replacement therapy.
2. For complete instructions, see Coagulation Guidelines for Specimen Handling and Processing in Special Instructions.
3. Centrifuge, transfer all plasma into a plastic vial, and centrifuge plasma again.
4. Aliquot plasma (1-2 mL per aliquot) into 4 separate plastic vials, leaving 0.25 mL in the bottom of centrifuged vial.
5. Freeze plasma immediately (no longer than 4 hours after collection) at -20 degrees C or, ideally, < or =-40 degrees C.

Additional Information:
1. Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.
2. Each coagulation assay requested should have its own vial.

Forms
1. Coagulation Patient Information (T675) in Special Instructions.
2. If not ordering electronically, complete, print, and send a Coagulation Test Request (T753) with the specimen.

Specimen Minimum Volume
See Specimen Required

Reject Due To

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
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<tbody>
<tr>
<td>Gross lipemia</td>
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<tr>
<td>Gross icterus</td>
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Specimen Stability Information

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<th>Specimen Type</th>
<th>Temperature</th>
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<th>Special Container</th>
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<tr>
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Clinical and Interpretive

Clinical Information

Lupus anticoagulant (LAC) is an antibody to negatively charged phospholipid that interferes with phospholipid-dependent coagulation tests.

LAC is found in, but not limited to, patients with systemic lupus erythematosus; LAC is associated with other autoimmune disorders and collagen vascular disease, and occurs in response to medications or certain infections (eg, respiratory tract infections in children) and in individuals with no obvious underlying disease.

LAC has been associated with arterial and venous thrombosis and fetal loss. Individuals with thrombocytopenia or factor II deficiency associated with LAC may be at risk for bleeding.

Reference Values

An interpretive report will be provided.

Interpretation

An interpretive report will be provided when testing is complete.

Cautions

No significant cautionary statements

Clinical Reference


Performance

Method Description

Prothrombin Time: Optical clot-based

The prothrombin time (PT) assay is performed on the Instrumentation Laboratory ACL TOP. Patient plasma is incubated and combined with a PT reagent containing recombinant human tissue factor, synthetic phospholipids, calcium chloride, polybrene, and buffer. The tissue thromboplastin-factor VII/VIIa complex activates factor X. Activated factor X (factor Xa) forms a complex with factor Va, calcium, and phospholipid to activate factor II (prothrombin) to thrombin. Thrombin then acts on fibrinogen (factor I) to form fibrin which clots, the time to clot formation is measured optically using a wavelength of 671 nm providing the assay endpoint (the "prothrombin time").(Package insert: HemosIL RecombiPlasTin 2G Instrumentation Laboratory Company, R0, 3/2019)

Activated Partial Thromboplastin Time: Optical clot-based

The activated partial thromboplastin time (APTT) assay is performed on the Instrumentation Laboratory ACL TOP. Patient plasma is combined and incubated with an APTT reagent containing phospholipid, a negatively charged contact factor activator, and buffer. After a specified incubation time, calcium is added to trigger the coagulation
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process in the mixture. Subsequently, the time to clot formation is measured optically using a wavelength of 671 nm. Mixing studies (see APMSC / Activated Partial Thromboplastin Time (APTT) Mix 1:1, Plasma) using normal pooled plasma are performed in the Special Coagulation Laboratory on samples with a prolonged APTT, to assist in discriminating between factor deficiency states and coagulation inhibitors, unless further testing is not indicated. (Package insert: HemosIL SynthASil. Instrumentation Laboratory Company, R11, 06/2017)

Dilute Russellâ€™s Viper Venom Time: Optical clot-based

The dilute Russell viper venom time (DRVVT) screening assay is performed on the Instrumentation Laboratory ACL TOP. Patient plasma is incubated for a specified time, and then combined with a DRVVT screening reagent containing Russell viper venom, phospholipids, heparin neutralizing agents, calcium, buffers and stabilizers to trigger the coagulation process. Subsequently, the time to clot formation is measured optically using a wavelength of 671 nm. The patient DRVVT screening clotting time is normalized by dividing the patient result by the mean DRVVT screening clotting time of normal pooled plasma to yield a ratio (DRVVT screen ratio). (Package insert: LA CHECK DRVVT Precision Biologic, R14, 03/2012)

PDF Report
No

Day(s) Performed
Monday through Friday

Report Available
3 to 5 days

Specimen Retention Time
7 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
See Individual Test IDs

CPT Code Information
85610
85730
85613
85390
85130 (if appropriate)
Test Definition: ALUPP
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85130 (if appropriate)
85210 (if appropriate)
85220 (if appropriate)
85230 (if appropriate)
85240 (if appropriate)
85245 (if appropriate)
85246 (if appropriate)
85247 (if appropriate)
85250 (if appropriate)
85260 (if appropriate)
85270 (if appropriate)
85280 (if appropriate)
85335 (if appropriate)
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85390-26 (if appropriate)
85397 (if appropriate)
85597 (if appropriate)
85598 (if appropriate)
85611 (if appropriate)
85613 (if appropriate)
85613 (if appropriate)
**Test Definition: ALUPP**
Lupus Anticoagulant Prof

85635 (if appropriate)
85670 (if appropriate)
85732 (if appropriate)

**LOINC® Information**

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