Overview

Useful For
Predicting recurrence after radical prostatectomy for clinically localized prostate cancer and following response to androgen ablation therapy, when used in conjunction with prostate-specific antigen

Method Name
Automated Chemiluminescent Immunometric Assay

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen Required
Container/Tube:

Preferred: Red top

Acceptable: Serum gel

Specimen Volume: 1 mL

Specimen Minimum Volume
0.4 mL

Reject Due To

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross hemolysis</td>
<td>Reject</td>
</tr>
<tr>
<td>Gross lipemia</td>
<td>OK</td>
</tr>
</tbody>
</table>

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>Refrigerated (preferred)</td>
<td>7 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>180 days</td>
<td></td>
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</tbody>
</table>

Clinical and Interpretive

Clinical Information
Prostatic acid phosphatase (PAP), a glycoprotein synthesized by the prostate gland, is a member of a diverse group of isoenzymes, the acid phosphatases, which are capable of hydrolyzing phosphate esters in acidic medium. They
are classified on the basis of their electrophoretic mobilities.

PAP was a major tumor marker for prostate cancer for more than 50 years.(1) However, PAP is no longer used to screen for or stage prostate cancer. In most instances, serum prostate specific antigen (PSA) is used instead. PAP usefulness is now limited to niche applications. Pre-treatment PAP measurement may add unique, clinically useful prognostic information for predicting recurrence in men who are undergoing radical prostatectomy for clinically localized prostate cancer. PAP also may be useful for following the progression of disease response to therapy in men treated by androgen ablation. However, for both of these applications, PSA provides more information and also should be utilized.

**Reference Values**

< or =2.1 ng/mL

**Interpretation**

Prostatic acid phosphatase (PAP) levels above the reference range may indicate prostate cancer, but can be due to many other factors, see Cautions.

A rise in PAP levels in patients with known prostate cancer can indicate tumor progression or recurrence. However, there is considerable intra-subject biological variability, limiting the usefulness of this test.

**Cautions**

Prostatic acid phosphatase (PAP) measurement must not be regarded as an absolute test for malignancy since other factors, including benign prostatic hyperplasia, prostatic infarction, and manipulation of the prostate gland may result in elevated serum PAP concentrations.

PAP measurements provide little additional information beyond that provided by prostate-specific antigen measurements.

Human anti-mouse antibodies (HAMA) may be present in specimens from patients who have received immunotherapy utilizing monoclonal antibodies. Other heterophile antibodies also may be present in patient specimens. This assay has been specifically formulated to minimize the effects of these antibodies on the assay. However, carefully evaluate results from patients known to have such antibodies.

**Clinical Reference**


**Performance**

**Method Description**

The instrument used is Siemens Immulite 2000. The patient sample is added to a solid-phase that is coated with a mouse monoclonal antibody specific for prostatic acid phosphatase (PAP). A goat-anti-PAP-alkaline phosphatase conjugate is added to form an antibody sandwich complex. Excess conjugate is removed by washing and an adamantyl dioxetane phosphate substrate is added to produce chemiluminescence. Light emission is proportional to PAP concentration in the specimen. (Package insert: IMMULITE 2000 PAP, PIL2KPA-14, 2008-7-29)

**PDF Report**

No
**Test Definition: PACP**
Prostatic Acid Phosphatase, S

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**Day(s) and Time(s) Test Performed**
Monday through Friday; 5 a.m.-3pm., Saturday; 6 a.m.-3pm

**Analytic Time**
Same day/1 day

**Maximum Laboratory Time**
3 days

**Specimen Retention Time**
14 days

**Performing Laboratory Location**
Rochester

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**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 or approved 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**
84066

**LOINC® Information**

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<thead>
<tr>
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<th>Test Order Name</th>
<th>Order LOINC Value</th>
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</thead>
<tbody>
<tr>
<td>PACP</td>
<td>Prostatic Acid Phosphatase, S</td>
<td>20420-6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Result ID</th>
<th>Test Result Name</th>
<th>Result LOINC Value</th>
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<tbody>
<tr>
<td>PACP</td>
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