

# PSA, Free and Total

**CPT Code:** 84154, 84153

**Order Code:** Panel code: C556

**ABN Requirement:** No

**Includes:** Total PSA, Free PSA, % Free PSA (calculated)

**Synonyms:** FPSA; PSA-free; % FPSA

**Specimen:** Serum

**Volume:** 1.0mL

**Minimum Volume:** 0.5 mL

**Container:** Gel-barrier tube (SST, Tiger Top)

## Collection:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. DO NOT SHAKE.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.

**Special Instructions:** Samples should not be taken from patients receiving therapy with high biotin doses (>5 mg/day) until at least 8 hours following the last dose. Samples should be collected prior to a patient receiving a digital rectal exam.

**Transport:** Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions included with the provided shipping box.

## Stability:

**Ambient (15-25°C):** not acceptable

**Refrigerated (2-8°C):** 5 days

**Frozen (-20°C):** 3 months

**Causes for Rejection:** Specimens other than serum; improper labeling; samples not stored properly; samples older than stability limits

**Methodology:** Electrochemiluminescence Immunoassay (ECLIA)

**Turn Around Time:** 1 to 5 days

**Reference Range:** The reference range listed for Free PSA is in terms of %Free PSA and attached to each result as an interpretive comment:

## **Free PSA**

Test Method: Roche Chemiluminescent Immunoassay for Total PSA  
4.000-10.000 ng/mL:

>25% Free PSA - 8% Risk for Prostate Cancer

20-25% Free PSA - 16% Risk for Prostate Cancer

15-20% Free PSA - 20% Risk for Prostate Cancer

10-15% Free PSA - 28% Risk for Prostate Cancer

0-10% Free PSA - 56% Risk for Prostate Cancer

Catalona et al. *JAMA*. 1998; 279:1542.

## **Total PSA**

Test Method: Roche Chemiluminescent Immunoassay  
≤4.000 ng/mL

**Clinical Significance:** In men over 50 years of age with total PSA values between 4.000 and 10.000 ng/mL, the percent (%) free PSA gives an estimate of the probability of cancer. In these circumstances the measurement of the % free PSA may aid in avoiding unnecessary biopsies.

Elevated levels of Prostate Specific Antigen (PSA) have been associated with benign and malignant prostatic disorders. Studies indicate that in men 50 years or older measurement of PSA is a useful addition to the digital rectal exam in the early detection of prostate cancer. In addition, PSA decreases to undetectable levels following complete resection of the tumor and may rise again with recurrent disease or persist with residual disease. Thus, PSA levels may be of assistance in the management of prostate cancer patients.

**Limitations:** Flutamide at therapeutic dosage levels resulted in slightly decreased fPSA results. In rare cases, interference due to extremely high titers of antibodies to analyte-specific antibodies, streptavidin or ruthenium can occur. A

digital rectal exam can cause a temporary increase in PSA levels. Vigorous exercise that affects the prostate, such as bike riding, and ejaculation may also lead to a temporary rise in PSA levels. Chemotherapeutic drugs may affect PSA levels.

**Additional Information:** If the PSA test result is high, it should be repeated 6 weeks and 3 months later, as other prostate conditions can cause a transient increase in PSA levels.

*The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.*