− Tumor Markers

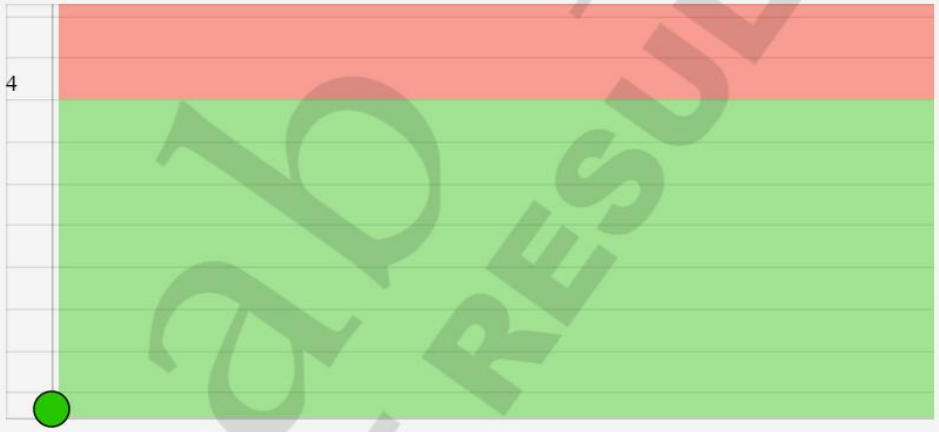
Tumor markers are substances, often proteins, which are produced by the cancer tissue itself or sometimes by the body in response to a cancer growth. Because some of these substances can be detected ... See more

Tumor Indicators

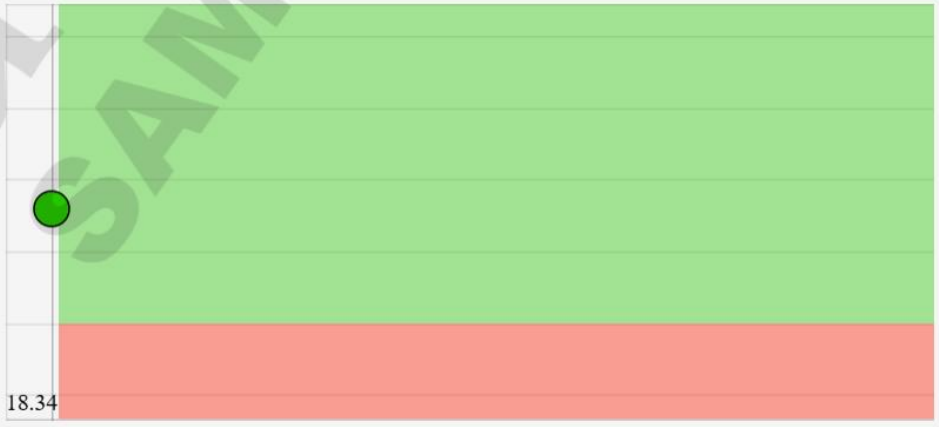
Tumor markers are substances that are produced by cancer or by other cells of the body in response to cancer or certain benign (noncancerous) conditions. Most tumor markers are made by normal cells as well as by cancer cells; however, they are produced at much higher levels in cancerous conditions. These substances can be found in the blood, urine, stool, tumor tissue, or other tissues or bodily fluids of some patients with cancer. Most tumor markers are proteins. However, more recently, patterns of gene expression and changes to DNA have also begun to be used as tumor markers. Markers of the latter type are assessed in tumor tissue specifically. There are some limitations to the use of tumor markers. Sometimes, noncancerous conditions can cause the levels of certain tumor markers to increase. In addition, not everyone with a particular type of cancer will have a higher level of a tumor marker associated with that cancer. Moreover, tumor markers have not been identified for every type of cancer.

Hide

− PSA, TOTAL (ng/mL)	0.3	Range: < OR = 4.0



+ PSA, FREE (ng/mL)	0.1	Range: See Comments
− PSA, % FREE (% (calc))	33	Range: >25



Result Comments

PSA(ng/mL)	Free PSA(%)	Estimated(x) Probability of Cancer(as%)
0-2.5	(*)	Approx. 1
2.6-4.0(1)	0-27(2)	24(3)
4.1-10(4)	0-10	56
	11-15	28
	16-20	20
	21-25	16
	>or =26	8
>10(+)	N/A	>50

References:(1)Catalona et al.:Urology 60: 469-474 (2002)
(2)Catalona et al.:J.Urol 168: 922-925 (2002)

Free PSA(%)	Sensitivity(%)	Specificity(%)
< or = 25	85	19
< or = 30	93	9

(3)Catalona et al.:JAMA 277: 1452-1455 (1997)
(4)Catalona et al.:JAMA 279: 1542-1547 (1998)

(x)These estimates vary with age, ethnicity, family history and DRE results.
(*)The diagnostic usefulness of % Free PSA has not been established in patients with total PSA below 2.6 ng/mL
(+)In men with PSA above 10 ng/mL, prostate cancer risk is determined by total PSA alone.

The Total PSA value from this assay system is standardized against the equimolar PSA standard. The test result will be approximately 20% higher when compared to the WHO-standardized Total PSA (Siemens assay). Comparison of serial PSA results should be interpreted with this fact in mind.

PSA was performed using the Beckman Coulter Immunoassay method. Values obtained from different assay methods cannot be used interchangeably. PSA levels, regardless of value, should not be interpreted as absolute evidence of the presence or absence of disease.