

TEST AT METASTATIC DIAGNOSIS TO UNCOVER BRCA IN PROSTATE CANCER

Biomarker testing for somatic or germline *BRCA1/2* mutations can help reveal precision medicine options, such as PARP inhibitors, for men with metastatic prostate cancer.^{1,2}

S **Somatic** – acquired mutations that are present only in tumor cells³

G **Germline** – inherited mutations present in all cells of the body³

Sample type	Characteristics	Testing facility examples*
Tumor tissue[†]	<ul style="list-style-type: none"> • May identify both somatic and germline mutations^{1,3} • Archival samples may be used, but may not represent the current genomic makeup of the tumor⁴ • Invasive procedure⁴ • Accurate results require sufficient amount of tissue⁴ • Bone biopsies are challenging to process⁴ • Typically longer turnaround time⁵ • May require confirmatory germline testing³ 	<ul style="list-style-type: none"> • Ambry Genetics^{6,7} • Caris Life Sciences⁸ • Exact Sciences^{9,10} • Foundation Medicine¹¹ • Guardant Health¹² • Myriad Genetics¹³ • Neogenomics Laboratories¹⁴ • Tempus Labs¹⁵
Blood (ctDNA)[†]	<ul style="list-style-type: none"> • Minimally invasive^{1,4} • Usable if no tissue available^{1,4} • May identify both somatic and germline mutations^{1,3} • Shorter turnaround time than tissue⁵ • Accurate results require sufficient levels of ctDNA⁴ • May require confirmatory germline testing³ 	<ul style="list-style-type: none"> • Foundation Medicine¹⁶ • Guardant Health¹⁷ • Tempus Labs¹⁸
Blood	<ul style="list-style-type: none"> • Minimally invasive • Shorter turnaround time than tissue^{6,19} • Identifies germline mutations only (does not identify somatic mutations)^{20,21} 	<ul style="list-style-type: none"> • Ambry Genetics^{7,19} • Exact Sciences²² • Invitae²³ • Myriad Genetics^{12,24} • Neogenomics Laboratories¹⁴ • Quest Diagnostics²⁵ • Tempus Labs²⁶
Saliva	<ul style="list-style-type: none"> • Minimally invasive • Shorter turnaround time than tissue^{8,9} • Identifies germline mutations only (does not identify somatic mutations)⁶ 	<ul style="list-style-type: none"> • Ambry Genetics^{7,19} • Exact Sciences²² • Invitae²³ • Quest Diagnostics²⁵

MUTATION STATUS HELPS INFORM WHICH ACTION YOU CAN TAKE



A positive result can inform treatment decisions. Consider precision medicine for your appropriate patients.^{4,27}



A negative result from one type of test doesn't rule out a potential mutation. Perform a follow-up test using another sample type to confirm the negative result.¹

REQUEST A BIOMARKER TEST TO UNCOVER BRCA MUTATIONS IN PROSTATE CANCER



Genetic counseling is recommended for patients with a positive germline mutation or a VUS to determine if cascade genetic testing is needed. You can find a counselor through the **National Society of Genetic Counselors**.^{4,27}

ctDNA, circulating tumor DNA; PARP, poly (ADP-ribose) polymerase; VUS, variant of uncertain significance.

*These labs are among the most frequently used by oncologists and urologists according to Physician Diagnostics Data Q3 2020-Q2 2021 derived from the HRR-tested mCRPC patient market share. This is not an exhaustive list of available testing facilities.²⁸

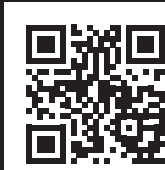
[†] Tumor and ctDNA testing can identify both germline and somatic mutations but are unable to differentiate between them.¹

[‡] FDA approved.



UNCOVER BRCA IN PROSTATE CANCER

Learn more at UncoverBRCA.com



REFERENCES:

1. Scott RJ, Mehta A, Macedo GS, et al. Genetic testing for homologous recombination repair (HRR) in metastatic castration-resistant prostate cancer (mCRPC): challenges and solutions. *Oncotarget*. 2021;12(16):1600-1614.
2. Shore N, Ionescu-Iltu R, Yang L, et al. Real-world genetic testing patterns in metastatic castration-resistant prostate cancer. *Future Oncol*. 2021;17(22):2907-2921.
3. Cimadamore A, Lopez-Beltran A, Massari F, et al. Germline and somatic mutations in prostate cancer: focus on defective DNA repair, PARP inhibitors and immunotherapy. *Future Oncol*. 2020;16(5):75-80.
4. Cresta Morgado P, Mateo J. Clinical implications of homologous recombination repair mutations in prostate cancer. *Prostate*. 2022;82 Suppl 1:S45-S59.
5. Guardant. Guardant Complete Product Selector. Accessed May 23, 2024. <https://www.guardantcomplete.com/guardant-portfolio>
6. Ambry Genetics. ProstateNext®. Accessed May 23, 2024. <https://www.ambrygen.com/providers/genetic-testing/5/oncology/prostatenext>
7. Ambry Genetics. Specimen Requirements. Accessed May 23, 2024. <https://www.ambrygen.com/providers/specimen-requirements>
8. Caris Life Sciences. Comprehensive tumor profiling. Accessed May 23, 2024. https://www.carislifesciences.com/wp-content/uploads/2023/01/TN0276-v57-Profile-Menu_Singles.pdf
9. Exact Sciences. OncoExtra Solid Tumor Specimen Requirements and Shipping Guidelines. Accessed May 23, 2024. <https://d2ft3j3kbsqj8w.cloudfront.net/-/media/Project/PrecisionOncology/PrecisionOncology/Files/oncoextra/oncoextra-specimen-requirements-and-shipping-guidelines-solid-tumor-final.pdf?rev=8c7568270022415384496bf106ff79a6&hash=807DEEC59D275EEC5608B44CC2C06F4B>
10. Exact Sciences. Ultra-Comprehensive Genomic Profiling With the OncoExTra™ Test. Accessed May 23, 2024. <https://d2ft3j3kbsqj8w.cloudfront.net/-/media/Project/PrecisionOncology/PrecisionOncology/Files/oncoextra/m-us-gem-00067-oncoextra-overview-1-pager.pdf?rev=f504d1e155e14052a9d5127b3b942355&hash=9B7B841678DB5E89EDB64973236DF847>
11. Foundation Medicine. FoundationOne® CDx. Accessed May 23, 2024. <https://www.foundationmedicine.com/test/foundationone-cdx>
12. Guardant. Guardant360 Tissuenext. Accessed May 23, 2024. <https://www.guardantcomplete.com/guardant-portfolio/tissuenext>
13. Myriad Genetics. Precise Tumor Detailed Sales Aid. Accessed May 23, 2024. <https://myriad-library.s3.amazonaws.com/Precise/Precise+Tumor+Detailed+Sales+Aid.pdf>
14. Neogenomics. Test Catalog. Accessed May 23, 2024. <https://neogenomics.com/sites/default/files/NeoGenomicsTestCatalog.pdf>
15. Tempus. Tempus xT Gene Panel. Accessed May 23, 2024. https://www.tempus.com/wp-content/uploads/2022/09/Tempus-xT_Gene-Panel.pdf
16. Foundation Medicine. FoundationOne® Liquid CDx. Accessed May 23, 2024. <https://www.foundationmedicine.com/test/foundationone-liquid-cdx>
17. Guardant. Guardant360® CDx. Accessed May 23, 2024. <https://www.guardantcomplete.com/guardant-portfolio/cdx>
18. Tempus. Tempus xFPlus Gene Panel. Accessed May 23, 2024. https://www.tempus.com/resources/document-library/Tempus-xFPlus_Gene-Panel
19. Ambry Genetics. BRCA1 and BRCA2. Accessed May 23, 2024. <https://www.ambrygen.com/providers/genetic-testing/23/oncology/brca1-and-brca2>
20. Giri VN, Morgan TM, Morris DS, et al. Genetic testing in prostate cancer management: considerations informing primary care. *CA Cancer J Clin*. 2022;0:1-12.
21. Giri VN, Morgan TM, Morris DS, et al. Genetic testing in prostate cancer management: considerations informing primary care. *CA Cancer J Clin*. 2022;0(suppl).
22. Exact Sciences. Riskguard: Hereditary Cancer Test. Accessed May 23, 2024. <https://www.exactsciences.com/Our-Tests/riskguard>
23. Invitae. Invitae BRCA1 and BRCA2 STAT panel. Accessed May 23, 2024. <https://www.invitae.com/en/providers/test-catalog/test-50002>
24. Myriad Genetics. BRACAnalysis CDx Provider Guide. Accessed May 23, 2024. <https://myriad-library.s3.amazonaws.com/BRACAnalysis+CDx/BRACAnalysis+CDx+Provider+Guide.pdf>
25. Quest Diagnostics. BRCA panel (BRCA1, BRCA2). Accessed May 23, 2024. [https://testdirectory.questdiagnostics.com/test/test-detail/91863/brca-panel-brca1-brca2?p=r&q=BRCA%20Panel%20\(BRCA1,%20BRCA2\)&cc=MASTER](https://testdirectory.questdiagnostics.com/test/test-detail/91863/brca-panel-brca1-brca2?p=r&q=BRCA%20Panel%20(BRCA1,%20BRCA2)&cc=MASTER)
26. Tempus. Tempus-xG overview. Accessed May 23, 2024. https://www.tempus.com/wp-content/uploads/2022/09/Tempus-xG_Overview.pdf
27. Cheng HH, Sokolova AO, Schaeffer EM, et al. Germline and somatic mutations in prostate cancer for the clinician. *J Natl Compr Canc Netw*. 2019;17(5):515-521.
28. Data on file. Janssen Biotech, Inc.