



Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



Prostate NGS Fusion Panel

Alternative Name

Prostate Fusion Panel

Methodology

Molecular

Test Description

The Prostate NGS Fusion Panel is an RNA-based next-generation sequencing panel that detects translocations and fusions with known and novel fusion partners of these genes: ACSL3, BRAF, CANT1, DDX5, ERG, ESRP1, ETV1, ETV4, ETV5, EWSR1, FLI1, FOXP1, HERPUD1, HMGN2P46, HNRNPA2B1, KLK2, KRAS, NDRG1, NTRK1, NTRK2, NTRK3, RAF1, RET, SLC45A3, SNURF, TMPRSS2, and UBTf.

Clinical Significance

The Prostate NGS Fusion Panel is intended to detect gene fusions associated with prostate cancer to aid in diagnosis and prognosis of the disease.

Gene fusions play critical roles in the development and progression of prostate cancer, and have been used as molecular biomarkers for diagnosis of the malignant disease. Approximately 50%-60% of prostate cancers harbor recurrent gene fusions, typically involving members of the ETS family of transcription factors (ERG, ETV1, ETV4, and ETV5). TMPRSS2-ERG is the most common fusion in prostate cancer, serving as a driver of prostate cancer progression. NTRK fusions are rare, but testing is of high interest due to possible treatment with specific TRK inhibitors (entrectinib, larotrectinib).

Specimen Requirements

- **FFPE tissue:** Paraffin block is preferred. Alternatively, send 1 H&E slide plus 5-10 unstained slides cut at 5 or more microns. Please use positively-charged slides and 10% NBF fixative. Do not use zinc fixatives.

Storage & Transportation

Use cold pack for transport, making sure cold pack is not in direct contact with specimen.

CPT Code(s)*

81449

Medicare MoIDX CPT Code(s)*

81449

New York Approved

Yes

Level of Service

Global

Turnaround Time

21 Days

References

1. Yang J. et al. Identification and characterization of novel fusion genes in prostate cancer by targeted RNA capture and next-generation sequencing. *Acta Biochimica et Biophysica Sinica*, Vol 50, Iss 11, November 2018, Pages 1166–1172, <https://doi.org/10.1093/abbs/gmy112>
2. Song, C., Chen, H. Predictive significance of TMRPSS2-ERG fusion in prostate cancer: a meta-analysis. *Cancer Cell Int* 18, 177 (2018). <https://doi.org/10.1186/s12935-018-0672-2>

*The CPT codes provided with our test descriptions are based on AMA guidelines and are for informational purposes only. Correct CPT coding is the sole responsibility of the billing party.

Please direct any questions regarding coding to the payor being billed.

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9490 NeoGenomics Way
Fort Myers, FL 33912
Phone: 239.768.0600/ Fax: 239.690.4237
neogenomics.com
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