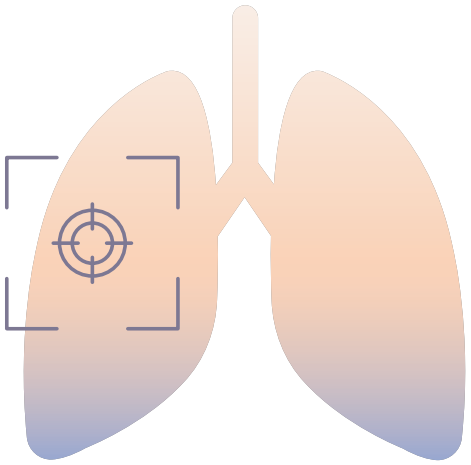
OneCell Diagnostics
OncoTarget
Tailored Genomics Tests

A Novel Disease Specific Genomic Test across 10 Key Solid Tumours

Offers Comprehensive Coverage of Disease Specific Genes for Actionable Treatment Insights



Background

Guideline-recommended gene panels targeting disease-specific genes are important mainly due to their specificity. Although comprehensive genomic profiling is vital for precision oncology, it may not be affordable for many patients in several tier-III and tier-IV cities. In addition, not every cancer patient needs to undergo a complete comprehensive genomic profiling every time. For instance, some patients may opt to undergo comprehensive genomic profiling once followed by guideline-recommended gene or single gene profiling for maintenance. Guideline-recommended gene panels are cost-effective and provide quick results for a more practical testing choice. Since genomic tests are predominantly "out-of-pocket" in India, guideline-recommended gene panels can be a useful way forward to understand one's genomic information. In fact, Guideline-recommended gene panels are highly useful for regular disease and treatment surveillance.

Our Guideline recommended gene panels in OncoTarget® are specific to ten cancer types including, Bladder, Breast, Colon, GI, Lung, Melanoma, Ovary, Prostate, Rectal, and Thyroid. These cancers are specifically chosen due to their prevalence in India and their well-established research on gene involvement. For instance, the age-adjusted rate (AAR) of gastric cancer among urban registries in India is (3.0–13.2) compared to the worldwide AAR (4.1–95.5). Lung cancer accounts for 5.9% of all cancers and 8.1% of all cancer-related deaths in India. The estimated five-year prevalence of colon cancer in India is 87 per 100,000 population While breast cancer accounts for 14% of all cancers in Indian women. With such a high prevalence of these ten cancer types, its research of disease-specific genes is also widespread. Thus, we at OneCell Diagnostics™ have designed disease-specific panels for these ten types of cancers enabling information to all people at an affordable cost. The test covers genes as per the approved guidelines of NCCN (National Comprehensive Cancer Network), ASCO (American Society of Clinical Oncology), and ESMO (European Society for Medical Oncology).

The test accepts tissue samples from patients which is the most widely isolated sample for clinical setting. Our main goal is to make genomic tests available for every cancer patient in need to make better treatment decisions.

Current challenges in genomic profiling

- Lack of awareness and accessibility: Awareness and accessibility are important challenges for any genomic test. Since genomic profiling is an emerging assistive technique, many doctors and patients are first not aware of the test, and second, they are not accessible to the test. This is predominantly the case in most tier-III and tier-IV cities where patients are not accessible to genomic tests despite their awareness.
- High Cost: Although comprehensive genomic profiling is the way forward, its related expenses are still out-of-pocket for most cancer patients in India. In addition to the vital treatment procedures, genomic testing may increase the cost to the patients.
- Long turnaround time (TAT): The TAT is a challenging period for treatment decisions. Long TAT may delay treatment for patients and many a time, timely treatment is crucial for favorable therapeutic responses. To generate quick and accurate outcomes, smaller and disease-specific gene panels may be beneficial.

Our solution

OneCell Diagnostics™ offers testing of disease-specific guideline-recommended gene panels for Bladder, Breast, Colon, GI, Lung, Melanoma, Ovary, Prostate, Rectal, and Thyroid. cancers of 107 genes to enable cost-efficient genomic testing for all. The test also offers circulating tumor cell (CTC) enumeration from the blood for longitudinal monitoring.

OncoTarget® Reporting - Harnessing the Power of AI and ML for Precision Oncology: OncoTarget® test comes with a cutting-edge reporting solution that combines the power of artificial intelligence (AI) and machine learning (ML) along with the expertise of oncologists. By providing clear, actionable genomic findings and a secure, data-driven platform for collaboration and decision-making.

The OncoTarget® report is a powerful tool for oncologists, providing clear, unambiguous, and actionable genomic findings that are essential for developing patient-specific treatment plans. The report provides a detailed description of patient-specific genetic mutations and pathways in accordance with international guidelines and is based on highly reliable and internally curated knowledge databases (iKb).

At the heart of the OncoTarget® report is iCARE™, the virtual genomic lab of oncologists.

AI-powered precision monitoring iCARE™ console is a virtual genomic lab designed by the oncologists for the oncologists.

iCARE™ allows doctors to visualize genomic variants in real-time, access high-level interactive genomic reporting, and leverage a rich database of reference literature.

Benefits of OncoTarget®

- Affordable genomic test with deep coverage of disease-specific guideline-recommended genes.
- CTC assessment from blood for longitudinal monitoring.
- Quick and easily comprehensible results.
- Improves accessibility of genomic tests

Important features of OncoTarget®

- Covers all types of genomic alterations such as single nucleotide variants (SNVs), small insertions and deletions (INDELs), copy number variation (CNV), and selected translocations (Fusion) on the selected genes.
- CTC enumeration for longitudinal monitoring.
- Enables Artificial Intelligence, AI-powered dynamic reporting through iCARE™.
- with a TAT of 10/12 Working Days
- Mean depth of 1000x.
- Mean coverage of 98-100% across all included genes.

Note: 1 FFPE tissue block with 20 – 30 % tumor content (not more than 3-4 months old).

Test outcomes

- Genomic Alteration – detected or Not detected
- Circulating Tumor Cells (CTC) assessment by OncoDiscover®
- Programmed Cell Death Ligand-1 (PD-L1) on CTC
- (Note: PD-L1 expression on tissue as an add-on option if requested)

Conclusion and Future Directions

Our goal at OneCell Diagnostics™ is to enable genomic solutions for all cancer patients. By developing

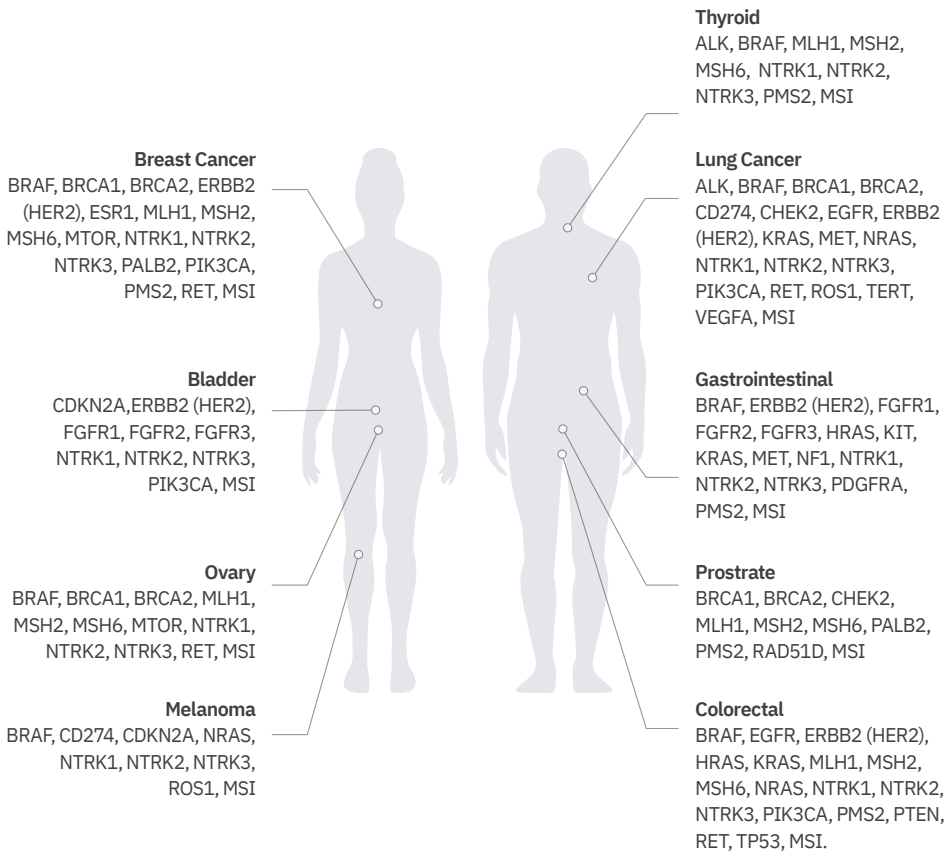


Figure 1. *The figure indicates key actionable genes in various solid tumors from OncoTarget®*

OncoTarget®, we aim to address the two primary limitations of genomic tests which includes Cost & Accessibility. Enabling solutions for these challenges will pave way for more personalized and precision treatment decisions for everyone. By making this step forward, many more measures can be taken in the future for preventive care, hereditary disease testing, advancing more sustainable healthcare outcomes.

References

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Notes:

About OneCell Diagnostics

OneCell Diagnostics is on a mission to democratize precision cancer monitoring and testing to make cancer testing an Actionable, Accessible, and Affordable solution. We bring the power of Genomics data and Artificial Intelligence (AI) to healthcare. We intend to impact millions of cancer patients' lives by providing high-quality precision therapy options to all needful patients worldwide.

US Office:
20380 Town Center Lane,
#218 Cupertino, CA 95014
United States

Mumbai Office:
404, Alpha Building, Main Street,
Hirandani Gardens, Powai,
Mumbai 400076, India

Pune Lab:
B 209, Go Square,
Aundh–Hinjewadi Road, Wakad,
Pune 411057, India

www.onecelldx.com

info@onecelldx.com