



# LIQUID BIOPSY FOR NON-INVASIVE CANCER TESTING

An alternative for when tissue-based biopsy is not available

## Designed for precision treatment and drug resistance monitoring

- Quantitatively detects cancer-driving variants and drug resistant markers early with a superior limit-of-detection
- Actionable results help guide therapeutic decisions related to targeted cancer therapy
- Requires two 10ml tubes of blood that can easily be worked into patient workflow
- Detects single nucleotide variants (SNVs), gene fusions, insertion and deletions (Indels), copy number variations (CNVs), and microsatellite instability (MSI) status
- Input includes both ctDNA and ctRNA allowing for optimal fusion detection

## qPCR

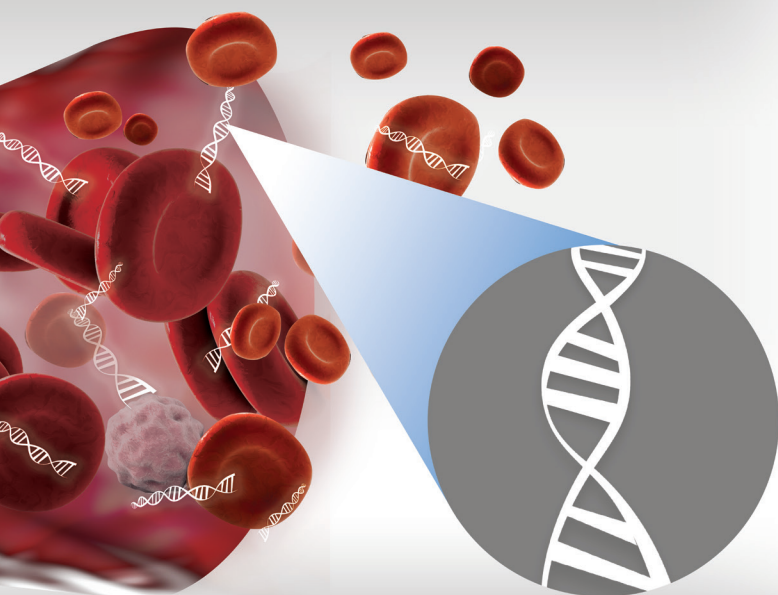
ALK	BRAF	EGFR	KRAS
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- Single gene analytes via qPCR
- Can be run together or individually
- Limit-of-detection 0.01%
- Rapid turnaround time of <3 business days
- EGFR T790M and C797S variant detection for drug resistance monitoring included

## NGS

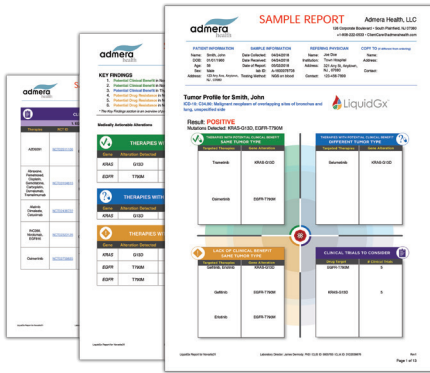
AKT1	ALK	BRAF	EGFR	ERBB2	HRAS
KIT	KRAS	MAP2K1	MET	NRAS	PDGFRA
PIK3CA	PTEN	RET	ROS1	TP53	

- Next Generation Sequencing test, coverage of >170 variants in 17 genes frequently mutated in cancer
- Includes MSI for selection of anti-PD1 therapy
- Limit-of-detection 0.1% (SNV, Indel, fusion), 2% (MSI), 2.5 total gene copies (CNV)
- Turnaround time of 3-5 business days
- Ability to detect novel fusions



## Relevant Solid Tumor Therapies

- |                          |                           |
|--------------------------|---------------------------|
| Afatinib (Gilotrif®)     | Nilotinib (Tasigna®)      |
| Alectinib (Alecensa®)    | Nivolumab (Opdivo®)       |
| Bevacizumab (Avastin®)   | Osimertinib (Tagrisso®)   |
| Brigatinib (Alunbrig®)   | Panitumumab (Vectibix®)   |
| Cabozantinib (Cometriq®) | Pembrolizumab (Keytruda®) |
| Ceritinib (Zykadia®)     | Sorafenib (Nexavar®)      |
| Cetuximab (Erbix®)       | Sunitinib (Sutent®)       |
| Crizotinib (Xalkori®)    | Temsirolimus (Torisel®)   |
| Dabrafenib (Tafinlar®)   | Trametinib (Mekinist®)    |
| Erlotinib (Tarceva®)     | Trastuzumab (Herceptin®)  |
| Everolimus (Afinitor®)   | Vandetanib (Caprelsa®)    |
| Gefitinib (Iressa®)      | Vemurafenib (Zelboraf®)   |
| Imatinib (Gleevec®)      |                           |

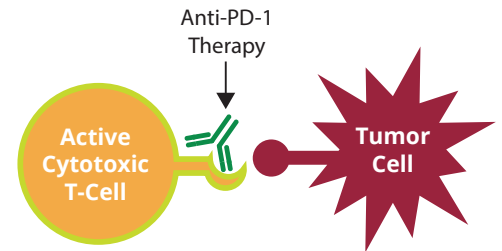
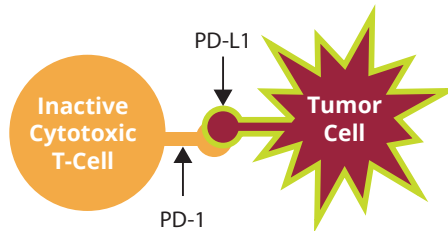
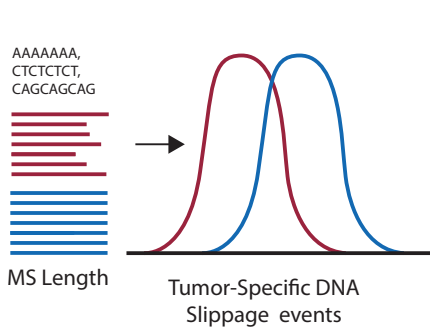


### Clear, color-coded recommendations:

- FDA-approved drugs for that indication
- FDA-approved drugs for other indications that may be beneficial
- Drugs that will likely not show any benefit due to the presence of resistance markers
- Easy to read with relevant clinical trial information based on geography (up to 5 trials listed per variant found)

## MSI can predict a predisposition to mutations as a result from impaired DNA mismatch repair (MMR) and effective anti-PD-1 therapy

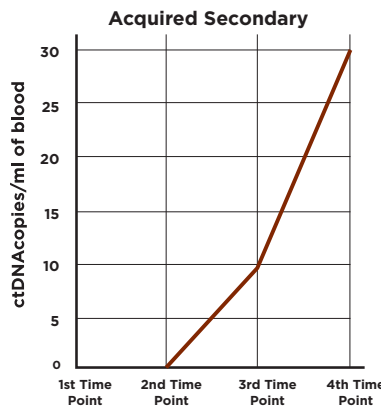
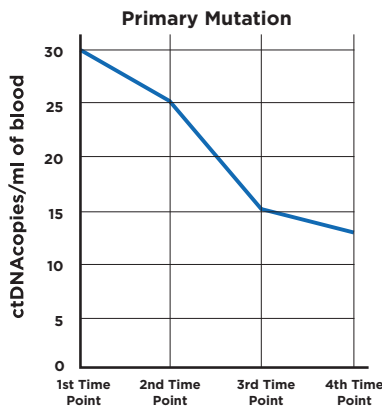
MSI status is determined by detecting the length of mononucleotide repeats at five genomic sites (BAT-25, BAT-26, NR-21, NR-24, and NR-27)



A shift in repeat length (formation of a second peak) observed in the **cell-free DNA (cfDNA)** compared to **genomic DNA (gDNA)** at 3 or more sites indicates MSI-High

T-Cell cannot recognize tumor cell as foreign

With anti-PD1 therapy, T-Cell can now recognize tumor cell as foreign



Quantifiably detects variants, including drug resistant markers  
Ideal for longitudinal monitoring