BROAD CLINICAL LABS

PRODUCT DATASHEET

Cell-free Tumor DNA Profiling via Liquid Biopsy

Product Overview

Genomic profiling of cell-free tumor DNA (cfDNA[1]) has the potential to revolutionize cancer precision medicine. As a proxy for tumor tissue profiling, successful liquid biopsy analysis can inform patient selection for clinical trials, provide useful data for treatment monitoring, and power the discovery of genomic mechanisms of disease resistance.

Broad Clinical Labs offers a flexible approach to cfDNA profiling with multiple products available. Ultra-low-pass whole genome sequencing (ULP-WGS) data is the typical entry and offers a low cost assay in which copy number analysis is used to estimate % tumor fraction (%TFx) of the input specimen. Libraries from this assay and results obtained can be utilized for additional sequencing with deeper coverage products of your choosing. Options may include whole exome or targeted UMI error corrected deep sequencing panels. All products are available under a quality system and carried out in a CLIA-certified, CAP accredited lab.

What's Included

- Sample receipt and QC
- Library preparation
- Sequencing
- Data analysis and delivery

Input Requirements

- 5-10 ml blood (Streck Cell-Free DNA BCT); or
- 4-10 ml plasma; 6.3 mL preferred or
- 5-50 ng cfDNA; or
- 4-10 ml urine; 6.3 mL preferred or
- 4-10 ml CSF; 6.3 mL preferred

[1] High sensitivity UMI error corrected targeted panel duplex sequencing is also available for genomic DNA applications

Data Deliverables

- BAM file with data from ultra-low pass whole genome
- iChorCNA analysis to estimate tumor fraction (.seg file output)
- Additional analysis available on request including somatic SNV/Indel calling for panels and exomes

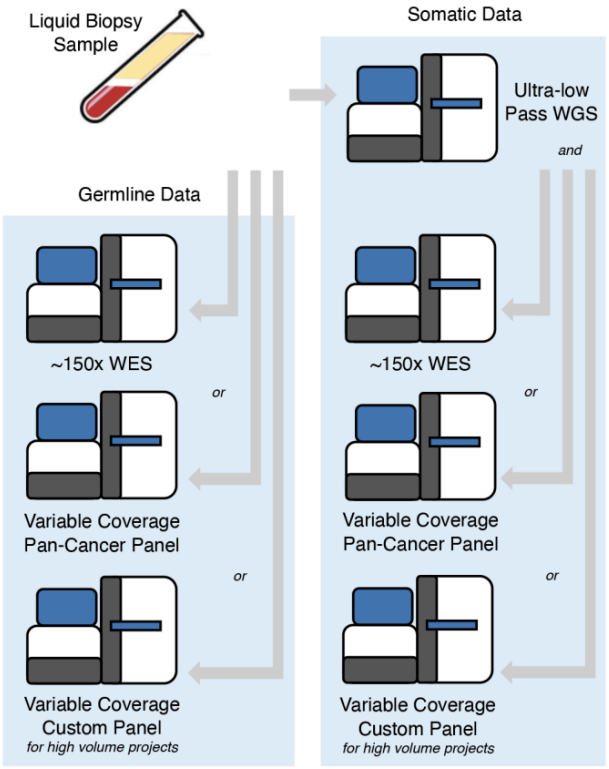

Figure 1: Potential combinations of liquid biopsy data with other complementary data types