The power of one

Simultaneous DNA and RNA profiling from a single, low-input sample in a day

New QIAseq® Multimodal Panels

Maximize the information you derive from a single total nucleic acid sample in half the time by simultaneously preparing DNA and RNA libraries in one consolidated workflow. Now, with this innovative technology, you can detect RNA fusions, exon skipping events and gene expression levels along with SNVs, InDels, CNVs and TMB profiles, so you can interrogate various biomarkers in a single, one-day workflow from as little as 10 ng of sample.

QIAseq Multimodal Panels deliver:

- A pre-optimized high-performance workflow from sample to sequencing: Go from total nucleic acid to an Illumina-compatible NGS library with a one-day, low-input workflow
    - o High-quality total nucleic acid isolation
    - o Increased target coverage with single primer extension (SPE), especially for challenging targets
    - o Enhanced NGS panel sensitivity due to error correction with Unique Molecular Indices (UMIs) and reduced sample index hopping with Unique Dual Indices (UDIs)
    - o Compatibility with low-yield and poor-quality biological samples
- A Sample to Insight® solution for consolidated targeted DNA and RNA analysis with CLC Genomics Workbench and QIAGEN Clinical Insight (QCI®) Interpret for QIAseq

Sample to Insight

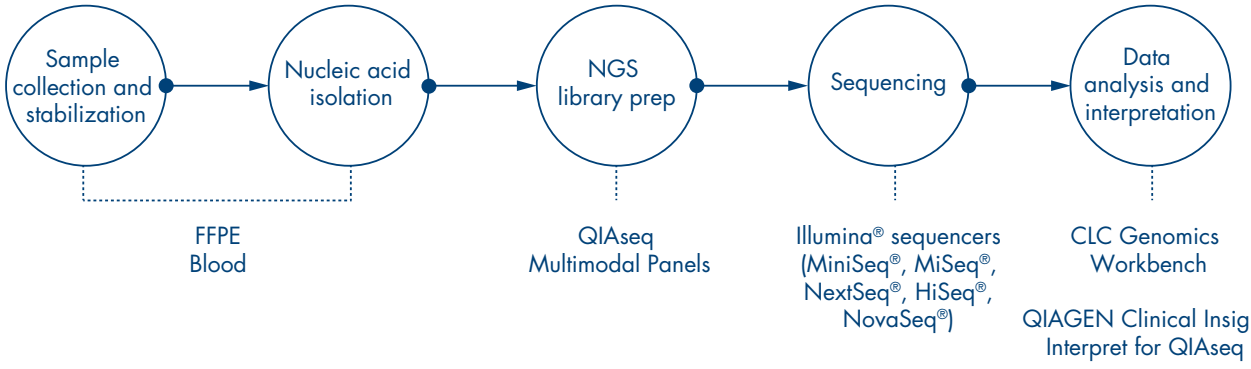

Figure 1. Extract more information, while reducing sample, time and cost with a simple, 1-day workflow. This flexible solution enables the construction of Illumina-compatible libraries from as little as 10 ng total nucleic acid isolated from a wide range of samples. The data analysis pipelines in CLC Genomics Workbench translate raw sequence data in FASTQ format to DNA and RNA variant files (VCFs), which can be further interpreted for biological significance through QCI Interpret for QIAseq.

Table 1. Uncompromised results with a shorter workflow: Highly concordant DNA variant and RNA fusion detection results across reference samples analyzed using the QIAseq Multimodal workflow and independent QIAseq DNA and RNA targeted panels

DNA variant analysis

Gene ID	Variant type	Expected VAF	QIAseq Targeted DNA VAF	QIAseq Multimodal VAF
ABL1	SNV	10%	12%	14%
ASXL1	Deletion	10%	7%	6%
ASXL1	Insertion	10%	11%	9%
BRAF	SNV	10%	15%	16%
CEBPA	Insertion	15%	9%	11%
CEBPA	Insertion	15%	11%	11%
CSF3R	SNV	5%	9%	8%
FLT3	SNV	10%	11%	11%
IDH1	SNV	5%	7%	10%
JAK2	SNV	5%	7%	8%
JAK2	Deletion	10%	13%	8%
MPL	SNV	5%	7%	10%
MYD88	SNV	10%	14%	16%
SF3B1	SNV	5%	8%	8%
SF3B1	SNV	5%	8%	6%
SRSF2	Deletion	5%	3%	3%
U2AF1	SNV	10%	13%	13%

RNA fusion detection

Gene ID	QIAseq RNAscan called?	QIAseq Multimodal called?
BCR-ABL1	✔	✔
ETV6-ABL1 (transcript 1)	✔	✔
ETV6-ABL1 (transcript 2)	✔	✔
FIPIL1-PDGRFA	✔	✔
MYST3-CREBBP	✔	✔
PCM1-JAK2	✔	✔
RUNX1-RUNX1T1	✔	✔
TCF3-PBX1	✔	✔

Learn more at **https://go.qiagen.com/QIAseqMultimodal**.

QIAseq Multimodal Panels are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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