Covaris°

truXTRAC[®] FFPE Total Nucleic Acid Kits

Simultaneously Extract NGS-quality DNA and RNA from FFPE Tissue Samples

The truXTRAC Total Nucleic Acid kits use the patented Adaptive Focused Acoustics[®] (AFA[®]) technology to actively and concurrently extract both DNA and RNA from formalin-fixed, paraffin-embedded (FFPE) tissue in an aqueous buffer. In addition to automated magnetic beadbased formats, manual column-based purification formats are also available. These kits have been designed to maximize recovery of intact nucleic acids, allowing researchers to detect low frequency mutations and rare gene fusion events.

Benefits

- Higher DV₂₀₀ scores
- Lower QNS rates
- Superior coverage depth
- Improve gene fusion detection
- Deparaffinization and rehydration

Applications

- Whole Genome Sequencing
- Whole Exome Sequencing
- Amplicon Sequencing

- Automation-friendly
- DNA/RNA co-extraction
- Minimize sample input required
- Safe: No organic solvent
- Higher extraction yield

• Droplet digital PCR (ddPCR)

RNA-seq

qPCR





By using the Covaris truXTRAC FFPE DNA and RNA kits, OmniSeq testing requires less tissue and results in fewer specimen failures when performing comprehensive genomics profiling on solid tumors.

-Jeff Conroy, Chief Scientist Officer, OmniSeq

RNA DV₂₀₀ Score Comparison



Figure 1. Illumina uses 30% DV₂₀₀ cut-off. DV₂₀₀: Distribution Value 200, which is the percentage of RNA fragments larger than 200 nucleotides. (Levy, S. The ORIEN Project- Large Scale Integration of FFPE Material into a Multisite Research Alliance. Oral presentation at AACR 2019; April 1, 2019)



Whole Genome Sequencing

Figure 2. Whole Genome Sequencing Results (Chromosome 19 Coverage) Comparison Covaris truXTRAC, Competitor and fresh frozen tissue.

Sequencing track from QIAGEN (red), Covaris (green) extracted FFPE kidney DNA, and fresh frozen (indigo) samples were loaded on the IGV viewer, and the coverage analyzed for chromosome 19. Coverage of >10x are indicated in dark colors, coverage of <10X are indicated in light colors. Chromosomal view of coverage indicates that Covaris extracted DNA quality resembles that of the DNA extracted from fresh frozen tissue.