

# **AVENIO Tumor Tissue Expanded Kit V2**

Tumor Profiling: Guideline-driven and emerging biomarkers



The AVENIO Tumor Tissue Expanded Kit V2 is a next-generation sequencing (NGS) tumor profiling research assay for identifying genomic aberrations derived from solid tumors. This research kit contains **77 genes**, including those currently in the U.S.

National Comprehensive Cancer Network (NCCN) Guidelines. This panel also contains emerging biomarkers investigated in clinical trials.



- Report all four mutation classes SNVs, indels, fusions and CNVs from just 20 ng of amplifiable DNA.<sup>2</sup>
- Delivers exceptional analytical performance supported by enzymatic error suppression and molecular barcodes.<sup>2</sup>
- Analyze a variety of solid tumor indications for research using a single optimized DNA workflow for up to 24 samples at a time.
- Reduce operational complexity by obtaining reagents for DNA isolation from tissue, library prep and target enrichment from a single trusted vendor.
- Receive a complete solution with the required reagents, a robust bioinformatics pipeline and software for analysis and reporting to keep your lab at the forefront of cancer research.<sup>†</sup>

### Research indications

Lung, Colorectal, Breast, Gastric, Prostate, Glioma, Melanoma, Ovarian, Thyroid and Pancreatic

### **Applications**

- Tumor profiling
- Detection of resistance biomarkers
- Investigation of emerging cancer biomarkers

**OPEN FOR** 

## Analytical metrics<sup>2</sup>

Mutation Class	SNVs		Indels		Fusions		CNVs	
Mutant Allele Frequency /Copy Number	5%		5%		5%			
Sensitivity and PPV	Sensitivity	PPV	Sensitivity	PPV	Sensitivity	PPV	Sensitivity	PPV
	>99%	>99%	>99%	>99%	>99%	>99%	SD	>99%

SD: Sample dependent Samples: FFPE tissue curls/sections, DNA input: ≥20 ng of FFPET DNA, total DNA amount for each sample determined by input QC. Sensitivity and Positive Predictive Value (PPV) metrics based on observed product performance. Sensitivity and PPV performance reported per variant. Sensitivity was determined using commercially available reference samples containing verified mutations at the stated allele frequencies. SNV performance is panel wide. Indel, Fusion and CNV performance based on whitelist variants. AVENIO Tumor Tissue Analysis Kits V2 achieve >99.99% per base specificity across each of the panels. Stated performance requires at least 20 million reads per sample for Targeted, Expanded and Surveillance Kits V2. Sequencing performed on an Illumina® NextSeq<sup>TM</sup> 500/550/550Dx instrument.

## **Specifications**

Panel size	192 kb
Sample size	2x10 µm FFPET curls/sections
DNA input*	20 ng of amplifiable DNA

<sup>\*</sup> Total DNA amount for each sample was determined by input QC.

Reactions per kit	24
Turn-around time	5 days from extraction to results
Product/Material Number	Plate Aversion - 09733744001 Plate Bversion - 09733752001

#### Assay targets

ABL1 Selected Regions   AKT1 Selected Regions   AKT2 Selected Regions   ALK Selected Regions   ALK Selected Regions   ALK Selected Regions   AR All Coding Regions   ARAF Selected Regions   BRAF Selected Regions   BRAF Selected Regions   BRCA1 All Coding Regions   BRCA2 All Coding Regions   CCND1 All Coding Regions   CCND2 All Coding Regions   CCND3 All Coding Regions   CD274 All Coding Regions   CDK4 All Coding Regions   CDK6 Selected Regions   CDK08 Selected Regions   CTNN1B1 Selected Regions   CTNN1B1 Selected Regions   CTNN1B1 Selected Regions   BRBB2 All Coding Regions   BRBB3 All Coding Regions   BRBB4 All Coding Regions   BRBB5 All Coding Regions   BRBB5 All Coding Regions   BRBB6 All Coding Regions   BRBB7 All Coding Regions   BRBB8 All Coding Regions   BRB8 All Coding Regions   BR8 All Coding Regions    BR8 All Coding Regions    BR8 All Coding Regi	Cone	Sog Torget	SNV	Indel	Fucion**	CMV"
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VHL All Coding Regions •	UGT1A1***	Selected Regions				
	VHL	All Coding Regions	•			

All coding regions are based on the longest transcript from Ensembl build 82.

## **AVENIO** family of NGS Oncology Assays

AVENIO Tumor Tissue Expanded Kit V2 is a part of the AVENIO family of NGS oncology research assays that include three tumor tissue and three corresponding ctDNA assays. By using the wider family of AVENIO assays, labs can obtain detailed molecular findings across all four mutation classes from tissue or plasma samples.

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For more information about the AVENIO Tumor Tissue Analysis Kits, please contact your local Roche representative.

<sup>\*</sup> Indels are limited to variants in a pre-specified list of positions, referred to as "Loci of Interest", except for EGFR exon 19 long deletions, EGFR exon 20 long insertions and MET long insertions, which are not restricted to a pre-defined set of Indels.

<sup>\*\*</sup> Detection of Fusions and CNVs are limited to variants in a pre-specified list of positions, referred to as "Loci of Interest" in the AVENIO analysis software.

\*\*\*\* UGT1A1\*28 allele sequenced but not currently called by the AVENIO analysis software.

<sup>1.</sup> National Comprehensive Cancer Network. http://www.nccn.org. August 2, 2023.

<sup>2.</sup> Data on file with Roche.