

Vantage 3D DNA SNV Solid Tumor Panel

The nCounter® Vantage 3D DNA SNV Solid Tumor Panel simplifies SNV expression analysis with curated content covering 97 driver mutations from 24 key solid tumor genes. Designed to identify the most meaningful variants across a range of solid tumor types, this panel targets somatic variants (SNV and small INDELS) associated with lung adenocarcinoma, thyroid carcinoma, pancreatic adenocarcinoma, colorectal adenocarcinoma, and melanoma. The genes and mutations covered are relevant to new and existing clinical trials, drug pipelines, tumor subtypes, drug resistance, and response.

DNA SNV detection is built on the core nCounter digital barcoding technology. The Vantage 3D DNA SNV Solid Tumor Assay is designed to detect sequence variants from human genomic DNA that has undergone target enrichment by multiplex PCR. This is enabled by a modified version of the nCounter barcode chemistry. A single nucleotide mismatch between the probe and the target can disrupt probe hybridization, thereby providing single-nucleotide specificity for each probe. The assay is designed to provide data that upon analysis yields positive detection calls for DNA mutations and variant alleles associated with solid tumor biology that are present at an allele frequency of 5% or greater.

Learn more about [3D Biology™ Technology](#).

Product Workflow

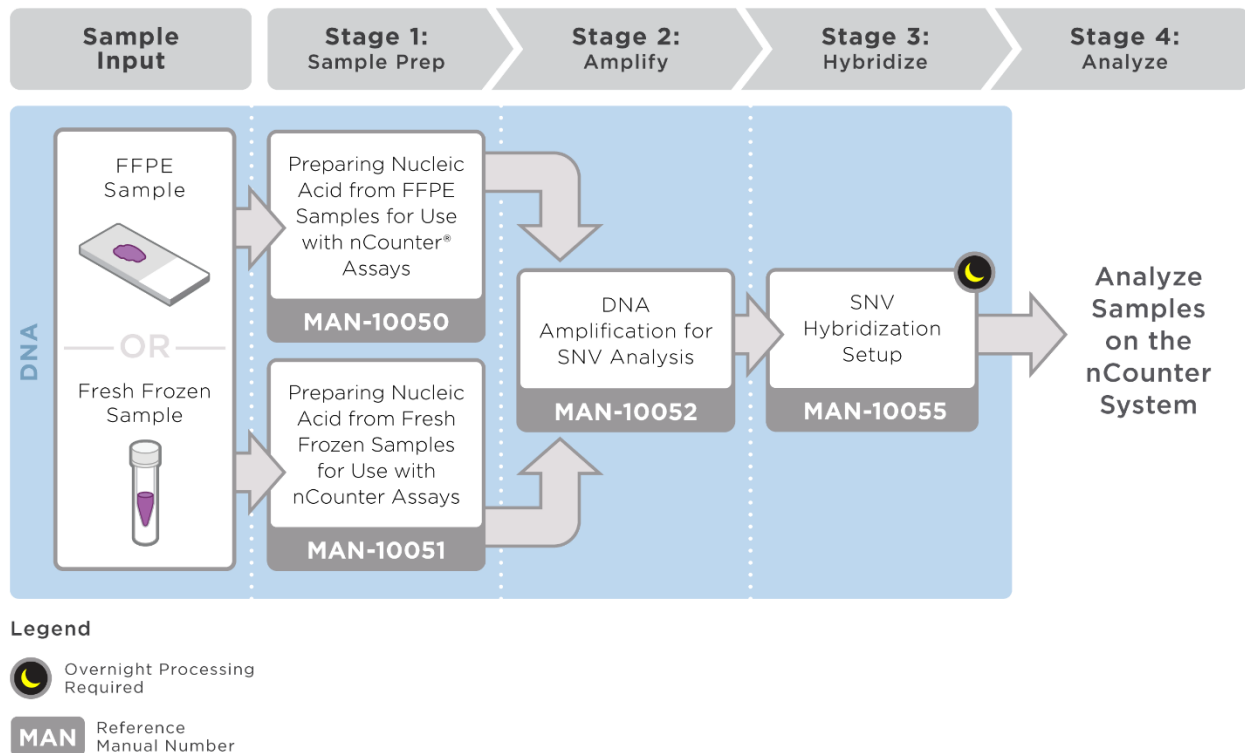


Figure 1. Workflow for the Vantage 3D DNA SNV Solid Tumor Panel

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System Qualification

SNV panels can only be successfully run on nCounter systems that have been performance-qualified for this panel type. Please consult the [SNV Qualification Kit Manual \(MAN-10039\)](#) for more details about how to obtain and use the materials needed for this system testing as well as how to communicate the results of the testing to NanoString Support (snvqualify@nanosttring.com). The SNV Qualification Kit process must be completed prior to running the DNA SNV Solid Tumor Panel for the first time. Contact NanoString Support (snvqualify@nanosttring.com) to receive additional assistance with the system qualification.

Materials and Supporting Documents

Table 1. Materials provided in the Vantage 3D DNA SNV Solid Tumor Panel Kit

Kit	Reagents	Storage
Vantage 3D DNA SNV Solid Tumor Panel	SNV TagSet	-80°C
	SNV Solid Tumor Primer Pool	-80°C
	SNV Solid Tumor Probe M Pool	-80°C
	SNV Solid Tumor Probe S Pool	-80°C
	SNV Solid Tumor Probe T Pool	-80°C
	5x dU Amp Master Mix	-20°C
	DNA SNV Reference Sample*	-20°C

* The DNA SNV Reference Sample is obtained from the US National Institute of Standards & Technology (NIST). It is Reference Material 8398: Human DNA for Whole-Genome Variant Assessment. It is homozygous for reference alleles at every position that is assayed by the DNA SNV Solid Tumor Panel and serves as an optional negative control and reference sample.

NOTE: Please reference the manuals listed in Figure 1 and Table 2 for additional required reagents not supplied by NanoString.

Table 2. Supporting Documents

Step	Manual	Protocol
System Qualification	MAN-10039	SNV Qualification Kit Manual
Nucleic Acid Extraction	MAN-10050	Preparing Nucleic Acid from FFPE Samples for Use with nCounter Assays
	MAN-10051	Preparing Nucleic Acid from Fresh Frozen Samples for Use with nCounter Assays
Sample Amplification	MAN-10052	DNA SNV Sample Amplification
Hybridization	MAN-10055	SNV Hybridization

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