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Simply better variant calling with DRAGEN™ analysis

Maximize genomic insights using DRAGEN secondary analysis with your TruSight™ Oncology 500 assays

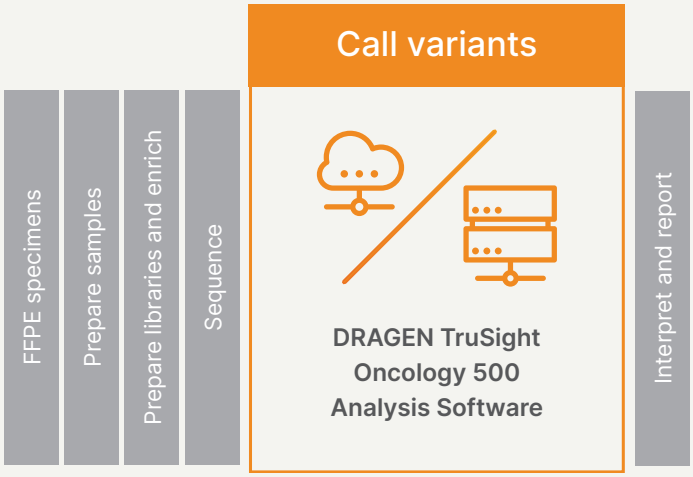
Better performance*

2-4× faster analysis*

More comprehensive coverage*

Highly accurate variant calling

DRAGEN (Dynamic Read Analysis for GENomics) secondary analysis offers expanded coverage for small variants, complex variants, copy number variants (CNVs), large rearrangements in *BRCA1/2*, and fusions. Improvements have also been made for microsatellite instability (MSI), fusions, and small variants.[1,2]



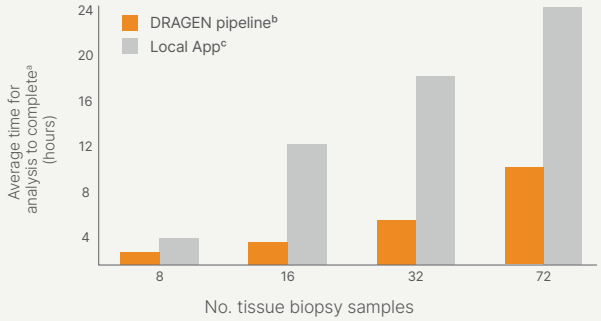
Use DRAGEN secondary analysis in the TruSight Oncology 500 workflow to redefine variant calling accuracy and speed.

* When using the DRAGEN TruSight Oncology 500 tissue pipeline vs the TruSight Oncology Local App (legacy software).

Get answers sooner

Analyzing data using the DRAGEN TruSight Oncology 500 tissue pipeline yields similar high-quality metrics as the TruSight Oncology Local App‡, in less than half the time.[3] Specifically, analysis is complete 2-4× faster than the local app and 10× faster than traditional open-source methods.

Faster analysis using the DRAGEN TruSight Oncology 500 pipeline



a. Analysis times are based on actual runs and will vary from run to run.
b. DRAGEN TruSight Oncology 500 v2 pipeline on the DRAGEN Server v3.
c. Local server specifications: Amazon EC2, c5.9xlarge instance (36 vCPU, 72 GiB memory); analysis time will vary with server specifications.

Maximize genomic insights

TruSight Oncology 500 and TruSight Oncology 500 High-Throughput already enable flexible, scalable CGP. The DRAGEN TruSight Oncology 500 tissue pipeline provides major advances to secondary analysis in these assays, offering new features for better performance and access to biomarkers not available in the local app†, like homologous recombination deficiency (HRD).‡

Report on more variant types and added features	
Complex variants	Small variants
Fusions	Splice variants
CNVsa	Absolute copy numbersb
Sex prediction	Gene-level LOHb
TMB	MSI
Tumor fractionb	Tumor ploidyb
HRD†	

a. Amplifications and deletions available for 500 genes with additional exon-level calling for *BRCA1* and *BRCA2*.
b. Beta features available with the TruSight Oncology 500 HRD assay. Beta features have not been verified by Illumina. See customer release notes for v2.5+ for more details

LOH, loss of heterozygosity

Consolidate CGP with DRAGEN secondary analysis

TruSight Oncology 500 assays enable CGP from tissue and liquid biopsies. With DRAGEN TruSight Oncology 500 analysis pipelines available for tissue and liquid samples, you can consolidate secondary analysis across the portfolio in one common DRAGEN server or on the cloud with Illumina Connected Analytics. This consolidation of bioinformatics platform helps standardize CGP with the TruSight Oncology 500 portfolio using DRAGEN secondary analysis.

Drive more genomic insights with TruSight Oncology 500 and DRAGEN analysis

TruSight Oncology 500 with DRAGEN analysis

DRAGEN secondary analysis

† Previous generation of TruSight Oncology 500 software (not based on DRAGEN software)

‡ HRD is available globally except for Japan. A separate TruSight Oncology 500 HRD add-on kit is required. HRD analysis is available with DRAGEN TruSight Oncology 500 v2.1+ pipelines.

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References

1. Food and Drug Administration. Truth Challenge V2: Calling Variants from Short and Long Reads in Difficult-to-Map Regions. Accessed November 14, 2023.
2. Illumina. DRAGEN Sets New Standard for Data Accuracy in PrecisionFDA Benchmark Data. Optimizing Variant Calling Performance with Illumina Machine Learning and DRAGEN Graph. Accessed November 14, 2023.
3. Illumina. TruSight Oncology 500 and TruSight Oncology 500 High-Throughput data sheet. Accessed November 15, 2023.