



TruSight™ Oncology 500 portfolio

Take cancer from uncertainty to insight

Maximize value from limited sample

Enacting precision oncology studies to move potential therapies beyond today's standard of care requires a comprehensive view of a tumor's underlying genomic landscape.

One method meeting this challenge is comprehensive genomic profiling (CGP), a next-generation sequencing (NGS) approach that:

Assesses

500+ genes simultaneously in a single assay, preserving precious sample

Consolidates

testing, **saving critical time** to inform next steps⁶

Increases

the ability to **find cancer-relevant biomarkers** relative to single-gene tests or multigene panels¹⁻⁵

Generates

one comprehensive analysis report for concise review

Identify genetic alterations in **90%** of samples

Large-cohort studies show that comprehensive genomic profiling has the potential to identify relevant genetic alterations in up to 90% of samples.^{2,7-11}





TruSight Oncology 500

1 streamlined portfolio. 500+ genes. ≤ 5 days.¹²⁻¹³

Enabling in-house comprehensive genomic profiling from tissue and liquid biopsy samples

With the TruSight Oncology 500 portfolio, you can:



Enable CGP

A single, pan-cancer NGS panel covers:

- All main variant classes
- Key guidelines¹⁴⁻¹⁶
- Clinical trials
- IO biomarkers: TMB, MSI, plus genomic signature HRD*



Implement in house

Offer precision oncology in your institution:

- Retain data and samples in house
- Return results in a relevant timeframe to support decision making
- Use an assay with comprehensive, pan-cancer content designed with the future in mind



Simplify your workflow

Streamline implementation:

- Integrated workflows go from sample to report in ≤ 5 days
- Flexible input types (FFPE or cfDNA from blood)
- Scalable batch sizes enabled with automation
- Local and cloud-based bioinformatics options



Obtain reliable results

Achieve consistent quality across all three assays:

- 99.999% analytical specificity¹⁷
- > 95% analytical sensitivity¹⁷
- Robust hybrid-capture chemistry
- Proven SBS sequencing
- Sophisticated bioinformatics

* HRD is only available with the addition of the TruSight Oncology 500 HRD kit to TruSight Oncology 500.

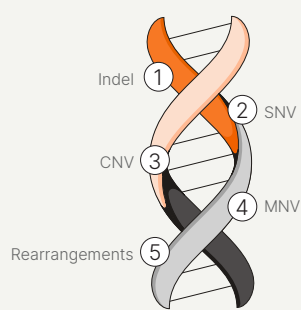
cfDNA, cell-free DNA; FFPE, formalin-fixed paraffin-embedded; GIS, genomic instability score; HRD, homologous recombination deficiency;

IO, immuno-oncology; MSI, microsatellite instability; SBS, sequencing by synthesis; TMB, tumor mutational burden.

Extensive coverage of guidelines¹⁴⁻¹⁶

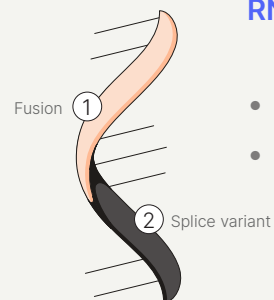
Analyze multiple variant types and key biomarkers in 523 cancer-relevant genes across DNA and RNA* in a single assay with the TruSight Oncology 500 portfolio and DRAGEN™ secondary analysis.

Variant types detected by TruSight Oncology 500 solutions



DNA variants

- Insertions/deletions (indel)
- Single nucleotide variants (SNV)
- Copy number variations (CNV)
- Multi-nucleotide variants (MNV)
- Gene rearrangements



RNA variants*

- Fusions
- Splice variants



Genomic signatures

- Tumor mutational burden (TMB from tissue, bTMB from blood)
- Microsatellite instability (MSI)
- Homologous recombination deficiency (HRD)[†] as measured by GIS[‡]

* RNA variants are included with the TruSight Oncology 500 and TruSight Oncology 500 High-Throughput tissue-based assays only.

† HRD is only available with the addition of the TruSight Oncology 500 HRD kit to TruSight Oncology 500.

‡ GIS, Genomic instability score.

A large, comprehensive panel ensures broad biomarker coverage across many solid tumor types*

| | | |
|----------------------|---|-----|
| Pan-cancer | <i>BRAF NTRK1 NTRK2 NTRK3 RET MSI TMB</i> | |
| Breast | <i>BRCA1 BRCA2 ERBB2 ESR1 PALB2 PIK3CA</i> | 180 |
| Colorectal | <i>ERBB2 KRAS NRAS</i> | 166 |
| Bone | <i>EGFR ERG ETV1 ETV4 EWSR1 FEV FLI1 FUS H3F3A HEY1 IDH1 MDM2 NCOA2 SMARCB1</i> | 140 |
| Lung | <i>ALK EGFR ERBB2 KRAS MET NUTM1 ROS1</i> | 223 |
| Melanoma | <i>KIT NRAS ROS1</i> | 172 |
| Ovarian | <i>BRCA1 BRCA2 FOXL2</i> | 149 |
| CNS† | <i>APC ATRX CDKN2A CDKN2B EGFR H3F3A HIST1H3B HIST1H3C IDH1 IDH2 MYCN PTCH1 RELA TERT TP53</i> | 140 |
| Prostate | <i>AR ATM BARD1 BRCA1 BRCA2 BRIP1 CDK12 CHEK1 CHEK2 FANCL FGFR2 FGFR3 PALB2 PTEN RAD51B</i> | 151 |
| Thyroid | <i>HRAS KRAS NRAS TERT</i> | 165 |
| Uterine and cervical | <i>BRCA2 EPC1 ERBB2 ESR1 FOXO1 GREB1 JAZF1 NCOA2 NCOA3 NUTM2A NUTM2B PAX3 PAX7 PHF1 POLE SMARCA4 SUZ12 TP53 YWHAE</i> | 138 |
| Other solid tumors | <i>ALK APC ARID1A ASPSCR1 ATF1 ATIC BAP1 BCOR BRCA1 BRCA2 CAMTA1 CARS CCNB3 CDK4 CDKN2A CIC CITED2 CLTC COL1A1 COL6A3 CREB1 CREB3L1 CREB3L2 CSF1 CTNNB1 DDIT3 DDX3X DNAJB1 DUX4 EED EGFR ERBB2 ERG ETV1 ETV4 ETV6 EWSR1 FEV FGFR2 FGFR3 FLI1 FOXL2 FOXO1 FOXO4 FUS GLI1 HEY1 HGF HMGA2 IDH1 KRAS LEUTX MAML3 MDM2 MYB MYOD1 NAB2 NCOA2 NF1 NFATC2 NFIB NR4A3 NRAS NUTM1 NUTM2A NUTM2B PALB2 PATZ1 PAX3 PAX7 PDGFB PDGFRA PRKACA PRKD1 RANBP2 ROS1 SDHA SDHB SDHC SDHD SMARCB1 SS18 SSS1 SSS2 SSS4 STAT6 SUZ12 TAF15 TCF12 TERT TFE3 TFEB TFG TP53 TPM3 TPM4 TRAF7 TSPAN31 VGLL2 WT1 WWTR1 YAP1 YWHAE ZC3H7B</i> | 152 |

Genes with biomarkers of potential clinical significance†



Find a list of all 523 genes included in the TruSight Oncology 500 portfolio.

A subset of genomic tumor profiling biomarkers for multiple cancer types. Content analysis provided by Velsera based on IVD software Knowledge Base v8.5 (February 2023). * Genes listed contain biomarkers of known significance linked to drug labels or guidelines.

† Numbers indicate additional genes in the TruSight Oncology 500 panel that contain biomarkers of potential significance based on their presence in clinical trials. ‡ CNS, central nervous system.



Integrated workflow for timely results

The TruSight Oncology 500 portfolio provides a streamlined workflow using proven NGS technology that enables rapid, reliable CGP.

Insights

Uncover meaningful insights from genomic data with TruSight Oncology 500 software solutions, available on-premises or in the cloud

Scalability*

Choose from multiple platforms to support a range of 8–192 samples/flow cell for tissue and 8–24[†] samples/flow cell for ctDNA

Flexibility

Use FFPE samples or minimally invasive circulating tumor DNA (ctDNA) from liquid biopsy to complement tissue studies or if sufficient tissue is not readily available



















Consistency

Minimize errors with automation options[†] and reduce hands-on time by ~50%¹⁸

* Throughput doubles for dual flow cell runs.

† Automation options and 48-sample ctDNA kits available in 2024.

Enabling comprehensive genomic profiling

| | Specimen | Extraction | Library prep | Sequencing | Variant calling | Insights and reporting |
|---|--|--|--|--|---|--|
| 4–5 days workflow | | | | | | |
| TruSight Oncology 500 Enable CGP from tissue biopsy |  FFPE |  DNA/RNA extraction kits |  TruSight Oncology 500 |  NextSeq™ 550 or NextSeq550Dx* System Up to 8 samples |  DRAGEN TruSight Oncology 500 Analysis on local DRAGEN server or cloud-based Connected Analytics |  Multiple commercial options: Illumina Connected Insights** or Velsera CGW†† |
| TruSight Oncology 500 High-Throughput Enable high-throughput CGP from tissue biopsy |  FFPE |  DNA/RNA extraction kits |  TruSight Oncology 500 High-Throughput |  NovaSeq™ 6000 or NovaSeq 6000Dx* System† 16–192 samples‡ |  DRAGEN TruSight Oncology 500 Analysis on local DRAGEN server or cloud-based Connected Analytics |  Multiple commercial options: Illumina Connected Insights** or Velsera CGW†† |
| 3.5–5 day workflow | | | | | | |
| TruSight Oncology 500 ctDNA v2 Enable CGP from liquid biopsy |  Blood |  cfDNA extraction kits |  TruSight Oncology 500 ctDNA |  NovaSeq 6000 System§ 8–48 samples |  DRAGEN TruSight Oncology 500 Analysis on local DRAGEN server or cloud-based Connected Analytics |  Multiple commercial options: Illumina Connected Insights** or Velsera CGW†† |

* NextSeq 550Dx or NovaSeq 6000Dx Instruments in research mode only.

† Requires separate, standalone DRAGEN server if local secondary analysis is desired.

‡ TruSight Oncology 500 High-Throughput is also compatible with the NextSeq 550 System and NextSeq 550Dx Instrument (in research mode) for up to 8 samples.

§ NovaSeq 6000Dx Instrument in research mode has not been extensively tested with TruSight Oncology 500 ctDNA, but is considered technically compatible.

Requires separate, standalone DRAGEN server if local secondary analysis is desired.

** Not available in all countries. Illumina Connected Insights supports user-defined tertiary analysis through API calls to third-party knowledge sources.

†† CGW, Clinical Genomics Workspace.

Reduce hands-on time by 50% with automation¹⁵

TruSight Oncology 500 and TruSight Oncology 500 High-Throughput library preparation automation kits are specifically formulated for use with liquid-handling robots, providing optimized volumes to maximize lab efficiency.*

- Minimize errors and wasted reagent
- Increase scalability
- Generate more consistent results¹⁹
- Optimize lab resources

*Illumina has preferred partnerships with Beckman Coulter Life Sciences and Hamilton to develop scripts specifically for use with the TruSight Oncology 500 portfolio.

Scripts for automating TruSight Oncology 500 High-Throughput

Beckman Coulter Life Sciences

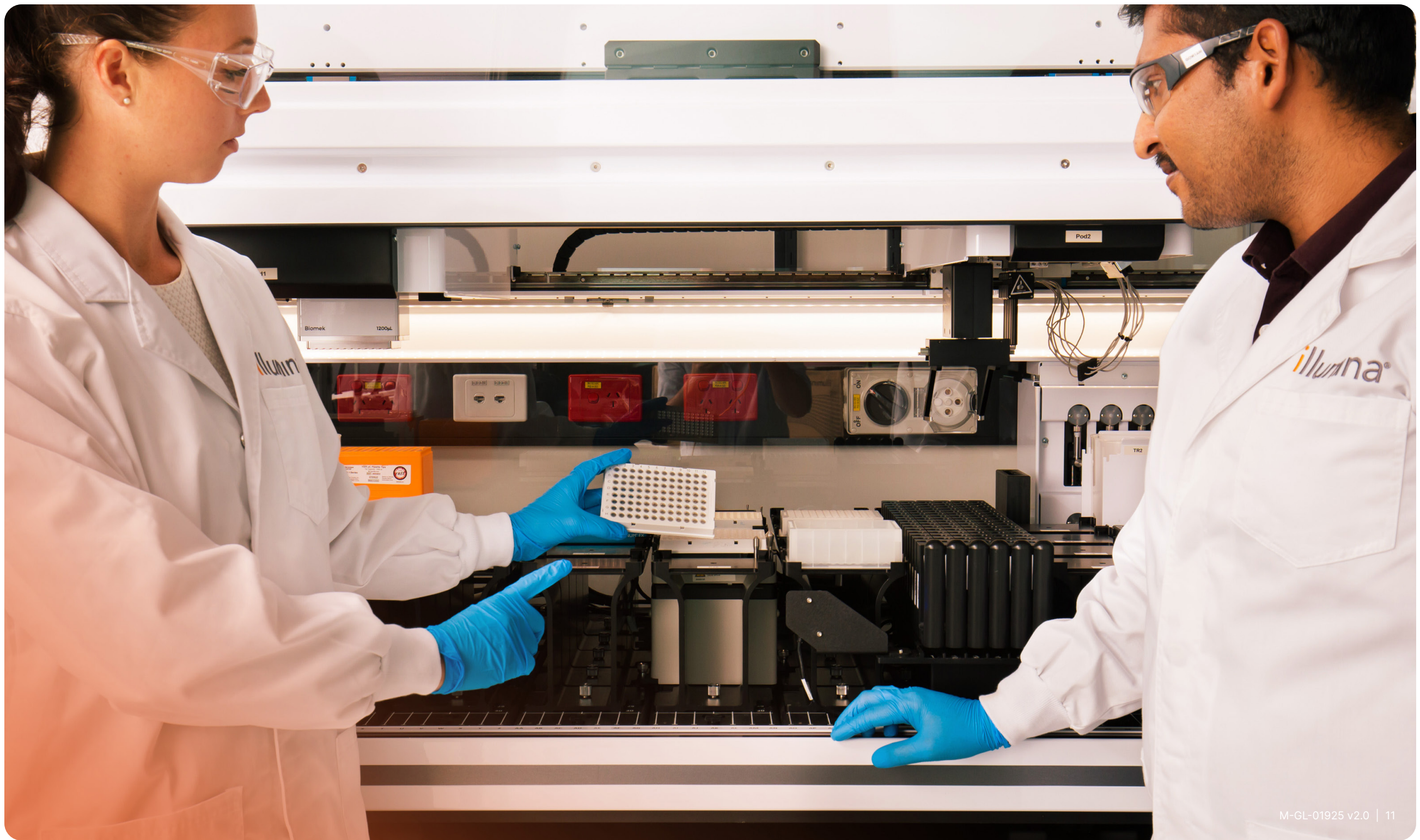
Hamilton

| Biomek i7 Hybrid | NGS STAR | NGS STAR MOA |
|--------------------|------------------|--------------------|
| Illumina Qualified | Vendor developed | Illumina Qualified |

Illumina Qualified methods are developed by the vendor with input from Illumina. The vendor is responsible for testing the method, with produced data reviewed by Illumina. Equipment is supplied and installed by the vendor. Illumina is available for secondary support to the vendor.

Vendor-developed methods are developed and tested by the vendor. Equipment is supplied and installed by the vendor.

[Learn more about automation options](#)



Innovative library preparation

Library preparation kits offer shared future-proof content while offering flexibility in sample input type and throughput.



TruSight Oncology 500

Enable CGP studies in house with a mid-throughput, streamlined assay

- Target DNA and RNA variants from 523 cancer-relevant genes, plus MSI and TMB
- Obtain results in 4-5 days

[Learn more](#)



Add HRD assessment

Obtain CGP and HRD insights from one sample and one workflow

- Include TruSight Oncology 500 HRD as an add-on to TruSight Oncology 500 for comprehensive assessment of HRD*
- Measure LOH, TAI, and LST together in one GIS,[†] powered by Myriad Genetics

[Learn more](#)



TruSight Oncology 500 High-Throughput

Increase throughput by batching up to 192 solid tumor samples for CGP studies

- Use the same proven content as TruSight Oncology 500
- Choose an automation option to increase scale while reducing hands-on time

[Learn more](#)



TruSight Oncology 500 ctDNA v2

Use minimally invasive blood samples to assess circulating tumor DNA (ctDNA)

- Target DNA variants across 523 cancer-relevant genes
- Obtain results in ~3.5 days
- Gain inter- and intra-tumor heterogeneity insights
- Use to complement tissue profiling or when tissue samples are unavailable or the quantity is insufficient

[Learn more](#)

* TruSight Oncology 500 HRD is not available for sale in Japan.

† LOH, loss of heterozygosity; TAI, telomeric allelic imbalance; LST, large-scale state transitions.



| | TruSight Oncology 500 | TruSight Oncology 500 High-Throughput | TruSight Oncology 500 ctDNA v2 |
|---|--|---|---|
| Content detected | | | |
| Small DNA variants (indels, MNVs, SNVs) | ✓ | ✓ | ✓ |
| Copy number variants (CNVs) | ✓ | ✓ | ✓ |
| Fusions (DNA, RNA) ^a | ✓ | ✓ | ✓ |
| Splice variants (RNA) | ✓ | ✓ | ✗ |
| Immuno-oncology biomarkers: TMB/bTMB, MSI | ✓ | ✓ | ✓ |
| HRD (genomic instability and causal genes) | ✓ Requires TruSight Oncology 500 HRD | ✗ ^b | ✗ |
| Assay-specific information | | | |
| System | NextSeq 550 System or NextSeq 550Dx Instrument (research mode) | NovaSeq 6000 System or NovaSeq 6000Dx Instrument (research mode) ^c | NovaSeq 6000 System or NovaSeq 6000Dx Instrument (research mode) ^c |
| Automation available | ✓ | ✓ | ✓ ^d |
| Sample types | Tissue (FFPE) | Tissue (FFPE) | ctDNA from blood |
| No. samples per flow cell | 8 | 16-192 | 8-24 |
| Panel size | 1.94 Mb DNA, 358 kb RNA | 1.94 Mb DNA, 358 kb RNA | 1.94 Mb DNA |
| DNA input requirement | 40 ng | 40 ng | 20 ng cfDNA |
| RNA input requirement | 40 ng | 40-80 ng | N/A |
| Total assay time (nucleic acid to variant report) | 4-5 days | 4-5 days | 3.5 days |

- a. Fusions only detected with RNA using TruSight Oncology 500 or TruSight Oncology 500 High-Throughput.
- b. Contact your local Illumina sales representative for options.
- c. Requires separate, standalone DRAGEN server if secondary analysis with on-premises server is desired.
- d. Automation for TruSight Oncology 500 ctDNA v2 will be available in 2024.

Recognized sequencing power

Powered by proven NGS technology and SBS chemistry, Illumina sequencing systems form the core of an integrated, sample-to-answer workflow. Ongoing developments will lead to compatibility with the latest sequencing systems.

NextSeq 550 and NextSeq 550Dx* Sequencing Systems

- Benchtop, mid-throughput system
- Push-button controls
- Load-and-go reagents
- Streamlined bioinformatics

The NextSeq 550Dx Instrument is an FDA-regulated, CE-marked *in vitro* diagnostic (IVD) version of the NextSeq 550 System.*



NovaSeq 6000 and NovaSeq 6000Dx* Sequencing Systems

- Production-scale system adopted by leading hospital, commercial, and academic labs
- Scalable to adapt to your needs
- Flexible sequencing workflow for advanced applications

The NovaSeq 6000Dx Instrument is an FDA-regulated, CE-marked IVD version of the NovaSeq 6000 System.*



* For *In Vitro* Diagnostic Use. Not available in all regions and countries. Use in RUO mode with TruSight Oncology 500 solutions.

| System | NextSeq 550 Sequencing System or NextSeq 550Dx Instrument (RUO mode) ^{ab} | NovaSeq 6000 Sequencing System or NovaSeq 6000Dx Instrument (RUO mode) ^{ac} | | | |
|--|--|--|------------------------------------|---|---|
| Assay compatibility | TruSight Oncology 500 TruSight Oncology 500 HRD | TruSight Oncology 500 High-Throughput TruSight Oncology 500 ctDNA v2 TruSight Oncology 500 HRD (SP flow cell only) | | | |
| Flow cell | High-output | SP | S1 | S2 | S4 |
| Flow cells processed per run | 1 | 1 or 2 | 1 or 2 | 1 or 2 | 1 or 2 |
| Run time | 24 hr | 19 hr | 19 hr | 25–36 hr | 36–45 hr |
| Clusters passing filter (PF) per flow cell | Up to 400M clusters PF | Up to 800M clusters PF | Up to 1.6B clusters PF | Up to 4.1B clusters PF | Up to 10B clusters PF |
| Assay read length | 500 and 500 HRD: 2 × 101 bp | 500 High-Throughput and 500 HRD: 2 × 101 bp | 500 High-Throughput: 2 × 101 bp | 500 High-Throughput: 2 × 101 bp 500 ctDNA v2: 2 × 151 bp | 500 High-Throughput: 2 × 101 bp 500 ctDNA v2: 2 × 151 bp |
| No. samples per flow cell ^d | | | | | |
| TruSight Oncology 500 | 8 | - | - | - | - |
| TruSight Oncology 500 HRD | 8 | 16 | - | - | - |
| TruSight Oncology 500 High-Throughput | - | 16 | 32 | 72 | 192 |
| TruSight Oncology 500 ctDNA | - | - | - | 8 | 24 |

a. For *In Vitro* Diagnostic Use. Not available in all regions and countries.

b. Install specifications are based on Illumina PhiX control library at supported cluster densities (between 129 and 165 k/mm² clusters passing filter). Actual performance parameters may vary based on sample type, sample quality, and clusters passing filter. The percentage of bases > Q30 is averaged over the entire run.

c. Output and read number specifications are based on a single flow cell using Illumina PhiX control library at supported cluster densities; the NovaSeq 6000 System can run one or two flow cells simultaneously.

d. Samples per run listed for the NovaSeq 6000 System are indicated for a single flow cell run. Option to run dual flow cells for TruSight Oncology 500 High-Throughput and TruSight Oncology 500 ctDNA v2.

Accurate, easy-to-use analysis reduces touchpoints, accelerates insights

Illumina Connected Software streamlines genomics workflows and helps reduce bioinformatics bottlenecks, getting you to reliable data sooner.

Flexible

Local and cloud-based analysis allows labs to choose an option that best suits their needs

Scalable

Cloud-based analysis enables scaling without additional hardware investments

Secure and compliant

Seamless data management and a no-touch workflow meet the most stringent security requirements; data sharing security and governance, audit trails, and encryption ensure data are safe and secure

User-friendly

Intuitive interface with automated data transfer and analysis kickoff reduces touchpoints to make software accessible to general users and bioinformatics professionals alike

Illumina Connected Software

Lab

Clarity LIMS

Run

Instrument software

Analytics

DRAGEN
secondary analysis

Insights

Illumina Connected Insights
Velsera CGW or other commercial options

Simplified lab optimization

Clarity LIMS™ software

- Preconfigured workflows streamline sample tracking and workflow management
- Automated reagent and sample volume calculations, step transitions, sample placement, and quality control save time on workflow configuration and script creation

[Learn more](#)

Streamlined run planning

Local and cloud-based tools

- User-friendly software for configuring the sequencing run and analysis steps
- Automated data transfer and analysis eliminate or reduce the need to interact with the workflow until analysis is complete
- Choose between BaseSpace™ Run Planner and a growing number of on-instrument apps

* Available as beta features with TruSight Oncology 500 HRD.

† GIS algorithm powered by Myriad Genetics is only accessible with TruSight Oncology 500 HRD. Not available in Japan.

‡ RNA variants not included with TruSight Oncology 500 ctDNA.

§ Not available in all countries. Illumina Connected Insights supports user-defined tertiary analysis through API calls to third-party knowledge sources.

** AMP, Association of Molecular Pathology; CAP, College of American Pathologists; ASCO, American Society of Clinical Oncology; ACMG, American College of Medical Genetics.

Accurate secondary analysis

DRAGEN secondary analysis

- Provides award-winning²⁰ accuracy and comprehensive support across multiple variant types
- Calls DNA variants (SNVs, indels, CNVs, absolute CNVs,* LOH,* tumor purity* and ploidy,* MSI, TMB, and GIS†) and RNA variants (fusions and splices)‡
- Runs analysis 2–10× faster than other pipelines,²¹ which is critical for high-throughput applications

The DRAGEN TruSight Oncology 500 tissue and ctDNA analysis pipelines are available locally via an on-instrument app and an on-premises DRAGEN server or in the cloud via Illumina Connected Analytics.

[Learn More](#)

Powerful insights

Illumina Connected Insights[§]

- Enables labs to implement and automate process-specific steps, from variant prioritization to report generation
- Streamlines variant interpretation to address this bottleneck and move precision medicine forward
- Harnesses 45+ external knowledge sources to identify relevant biomarkers, clinical trials, drug labels, and guidelines

[Learn More](#)

Velsera Clinical Genomics Workspace (CGW)

- Enables variant classification in tiers by clinical relevance based on the most current literature, guidelines, drug labels, and clinical trials information
- Outputs an evidence-based final interpretation report with clear, visual results that adhere to AMP, CAP, ASCO, and ACMG reporting guidelines**



Enhanced product attributes

To enable greater laboratory efficiency, TruSight Oncology 500 products feature:*

Certificate of Analysis

Every TruSight Oncology 500 product is issued with a certificate of analysis (CoA) by the Illumina Quality Assurance Department that ascertains the product has met its predetermined product release specifications and quality

Extended shelf life

The minimum guaranteed shelf life for TruSight Oncology 500 reagents is extended to six months, reducing the risk of product expiration and enabling labs to use reagents according to current testing needs

Advanced change notification

Illumina notifies laboratories six months before any significant changes are made to a product in the TruSight Oncology 500 portfolio

*For TruSight Oncology 500 bundles on the NextSeq 550Dx instrument, enhanced features apply only to library preparation kits and not to core consumables. CoA will be available for TruSight Oncology 500 ctDNA v2 at the end of 2023. Single-lot shipments for TruSight Oncology 500 ctDNA v2 will be available in 2024.

Welcome to a world of support

Illumina service and support begin when your Illumina instrument is delivered. Our scientists and engineers are ready to assist with instrument installation and laboratory setup. In addition to onsite support, courses are available to train users on various workflows. Illumina scientists are available 24 hours a day, five days a week globally to answer questions every step of the way.

Illumina Evaluation and Verification Service

Expedite analytical evaluation with tools and protocols intended to guide you in aligning with the latest CAP, AMP, and European standards.*

Illumina training

Get high-quality results on Illumina technology even faster with instructor-led, hands-on courses and web-based training options on various topics.

Contact Illumina

Contact your Illumina sales representative to find out more about our solutions.

Contact us

* Available only for TruSight Oncology 500 on the NextSeq 550 or NextSeq 550Dx Systems.

References

1. Dilon A, Wang L, Arcila ME, et al. Broad, Hybrid Capture-Based Next-Generation Sequencing Identifies Actionable Genomic Alterations in Lung Adenocarcinomas Otherwise Negative for Such Alterations by Other Genomic Testing Approaches. *Clin Cancer Res*. 2015;21(16):3631-3639. doi:10.1158/1078-0432.CCR-14-2683
2. Zehir A, Benayed R, Shah RH, et al. Mutational landscape of metastatic cancer revealed from prospective clinical sequencing of 10,000 patients [published correction appears in *Nat Med*. 2017 Aug 4;23 (8):1004]. *Nat Med*. 2017;23(6):703-713. doi:10.1038/nm.4333
3. Reitsma M, Fox J, Borre PV, et al. Effect of a Collaboration Between a Health Plan, Oncology Practice, and Comprehensive Genomic Profiling Company from the Payer Perspective. *J Manag Care Spec Pharm*. 2019;25(5):601-611. doi:10.18553/jmcp.2019.18309
4. Kopetz S, Mills Shaw KR, Lee JJ, et al. Use of a Targeted Exome Next-Generation Sequencing Panel Offers Therapeutic Opportunity and Clinical Benefit in a Subset of Patients With Advanced Cancers. *JCO Precis Oncol*. 2019;3:PO.18.00213. Published 2019 Mar 8. doi:10.1200/PO.18.00213
5. Ali SM, Hensing T, Schrock AB, et al. Comprehensive Genomic Profiling Identifies a Subset of Crizotinib-Responsive ALK-Rearranged Non-Small Cell Lung Cancer Not Detected by Fluorescence In Situ Hybridization. *Oncologist*. 2016;21(6):762-770. doi:10.1634/theoncologist.2015-0497
6. Piening BD, Dowdell AK, Weerasinghe R, et al. Comprehensive Genomic Profiling in Patients with Advanced Cancer in a Large US Healthcare System. Poster presented at: Association for Molecular Pathology (AMP) 2020; November 16-20, 2020; virtual meeting.
7. Stransky N, Cerami E, Schalm S, Kim JL, Lengauer C. The landscape of kinase fusions in cancer. *Nat Commun*. 2014;5:4846. doi:10.1038/ncomms5846.
8. Boland GM, Piha-Paul SA, Subbiah V, et al. Clinical next generation sequencing to identify actionable aberrations in a phase I program. *Oncotarget*. 2015;6(24):20099-20110. doi:10.18632/oncotarget.4040
9. Massard C, Michiels S, Ferte C, et al. High-Throughput Genomics and Clinical Outcome in Hard-to-Treat Advanced Cancers: Results of the MOSCATO 01 Trial. *Cancer Discov*. 2017;7(6):586-595. doi:10.1158/2159-8290.CD-16-1396.
10. Harris MH, DuBois SG, Glade Bender JL, et al. Multicenter Feasibility Study of Tumor Molecular Profiling to Inform Therapeutic Decisions in Advanced Pediatric Solid Tumors: The Individualized Cancer Therapy (iCat) Study. *JAMA Oncol*. 2016;2(5):608-615. doi:10.1001/jamaoncol.2015.5689
11. Parsons DW, Roy A, Yang Y, et al. Diagnostic Yield of Clinical Tumor and Germline Whole-Exome Sequencing for Children With Solid Tumors. *JAMA Oncol*. 2016;2(5):616-624. doi:10.1001/jamaoncol.2015.5699
12. Illumina. TruSight Oncology 500 and TruSight Oncology 500 High-Throughput data sheet. <https://www.illumina.com/products/by-type/clinical-research-products/trusight-oncology-500.html>. Accessed August 30, 2023.
13. Illumina. TruSight Oncology 500 ctDNA v2 data sheet. <https://www.illumina.com/products/by-type/clinical-research-products/trusight-oncology-500-ctdna-v2.html>. Accessed August 30, 2023.
14. Velsera. IVD software Knowledge Base v8.5. Accessed February 2023.
15. Mosele F, Remon J, Mateo J, et al. Recommendations for the use of next-generation sequencing (NGS) for patients with metastatic cancers: a report from the ESMO Precision Medicine Working Group. *Ann Oncol*. 2020;31(11):1491-1505. doi:10.1016/j.annonc.2020.07.014
16. Ettinger DS, Wood DE, Aisner DL, et al. NCCN Guidelines Insights: Non-Small Cell Lung Cancer, Version 2.2021. *J Natl Compr Canc Netw*. 2021;19(3):254-266. Published 2021 Mar 2. doi:10.6004/jnccn.2021.0013
17. Data on file. Illumina, Inc. 2019.
18. Data on file. Illumina, Inc. 2023.
19. Socea JN, Stone VN, Qian X, Gibbs PL, Levinson KJ. Implementing laboratory automation for next-generation sequencing: benefits and challenges for library preparation. *Front Public Health*. 2023;11:1195581. Published 2023 Jul 13. doi:10.3389/fpubh.2023.1195581
20. PrecisionFDA. Truth Challenge V2: Calling Variants from Short and Long Reads in Difficult-to-Map Regions. <https://precision.fda.gov/challenges/10/results>. Accessed August 14, 2023.
21. Data on file. Illumina, Inc. 2021.

Take cancer from uncertainty to insight

CGP offers a streamlined, faster method for gaining insights into the genomic underpinnings of cancer. With proven solutions and world-class support, the Illumina TruSight Oncology 500 portfolio is ready to enable your CGP efforts. Illumina is committed to investing in the TruSight Oncology 500 portfolio to bring new advancements to oncology researchers.

Together, we can obtain a greater understanding of the genome, propelling precision medicine forward.

Visit www.illumina.com/tso500 or contact us today.



We are always available for questions, insights, and conversation.

[Visit us at illumina.com.](http://www.illumina.com)

1.800.809.4566 toll-free (US) | +1.858.202.4566 tel
techsupport@illumina.com | www.illumina.com

© 2023 Illumina, Inc. All rights reserved. All trademarks are the property of Illumina, Inc. or their respective owners. For specific trademark information, see www.illumina.com/company/legal.html.

For Research Use Only. Not for use in diagnostic procedures.