Data Sheet

Agilent
Trusted Answers

NGS Data Analysis Made Easy

Key Beneftis

- Variant detection from DNA
- Built-in quality control dashboard
- Fully integrated genome browser
- Intuitive and automated software
- Seamless connection to Alissa Interpret

Streamlined NGS data analysis for the modern lab

The Agilent Alissa Reporter platform is an intuitive and streamlined cloud-based NGS secondary analysis software-as-a-service (SaaS) solution that delivers high performance variant detection with integrated genome browsing, a built-in quality control (QC) dashboard, and seamless connectivity to Agilent Alissa Interpret software. Alissa Reporter completely automates data upload, analysis, and export, including direct export from your Amazon Web Services account.

High-performance variant detection

From a single genomic sample, researchers can get more valuable information than ever before. Alissa Reporter supports parallel variant detection from DNA specimens. With Alissa Reporter's secondary analysis capabilities, you can detect single-nucleotide variants (SNVs), insertions and deletions (indels), and copy number variants (CNVs). As a fully transparent solution, Alissa Reporter includes confidence scores next to CNV calls.

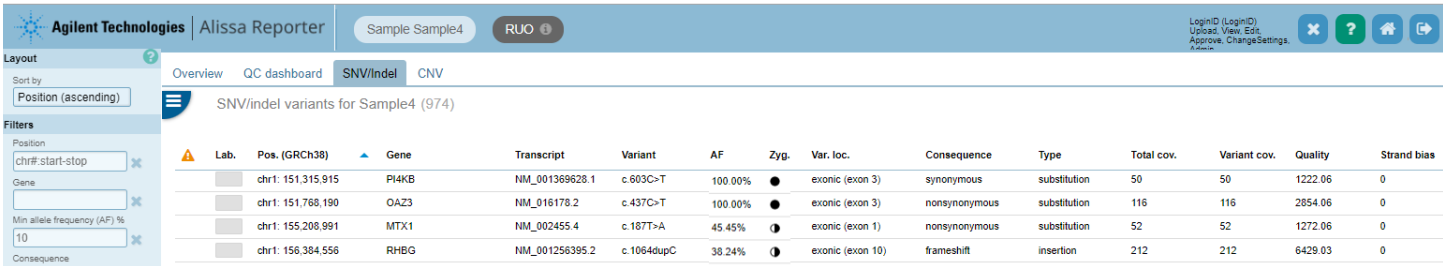

Figure 1. Alissa Reporter detects variants from DNA giving users high confidence in their results. SNVs and indels are reported in the SNV/indel module. The CNV detection module identifies both amplifications and deletions.

Integrated genome browser

Users can easily look further into the raw read pileups for a given SNV/indel variant by navigating to the genome browser clicking **Show pileup** while hovering over a variant.

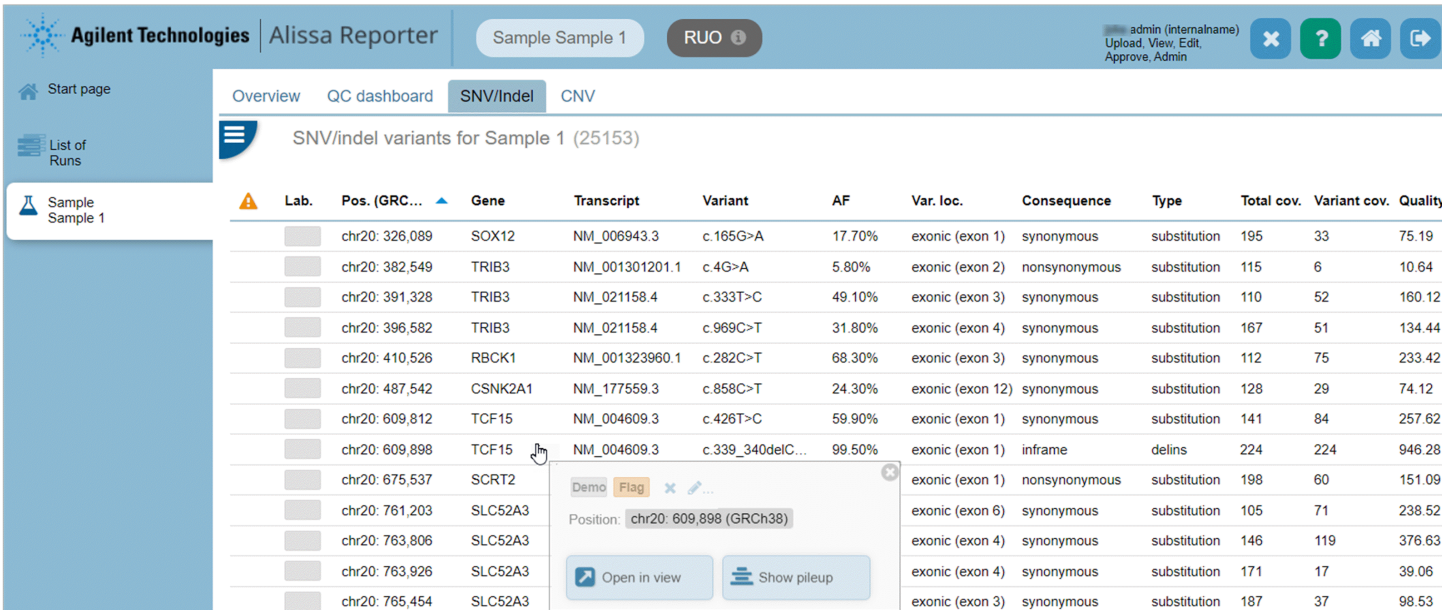

Figure 2. While hovering over a variant, click **Show pileup** to jump to the integrated genome browser.

Alissa Reporter automatically links users to the genome browser for manual inspection of raw reads.

Figure 3. View raw read pileups directly from Alissa Reporter's integrated genome browser.

Users can also visualize CNVs with Alissa Reporter's **CNV Viewer** function.

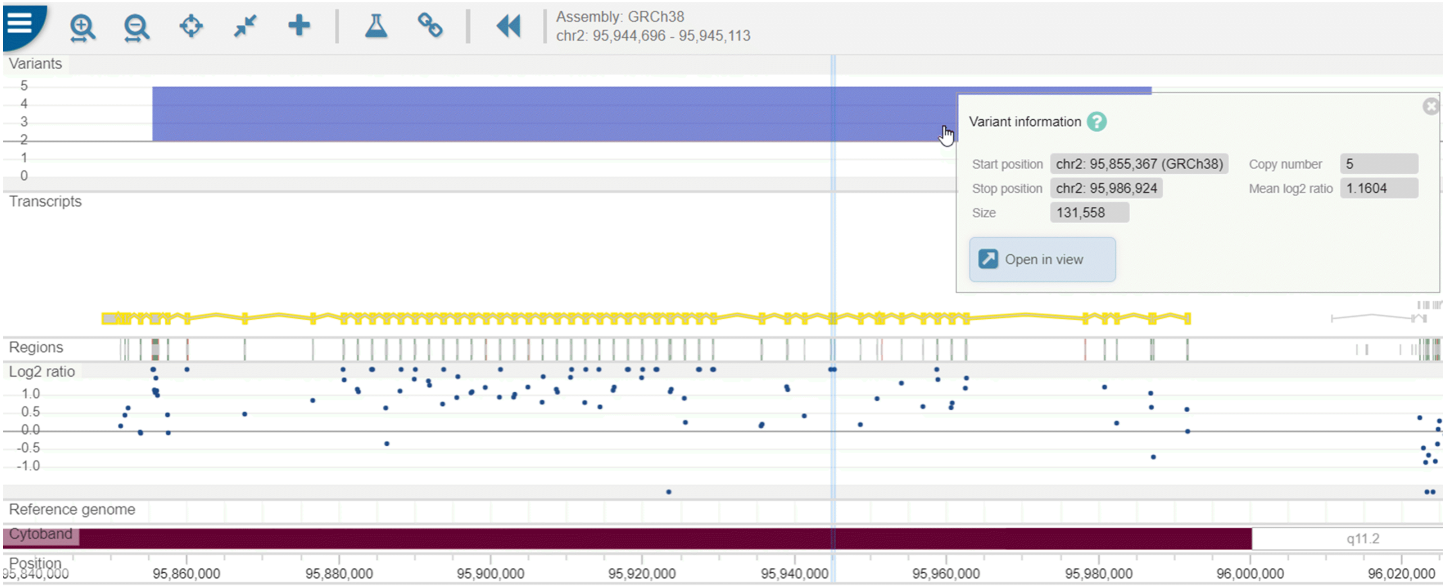

Figure 4. View raw read pileups directly from Alissa Reporter's integrated genome browser.

Built-in QC dashboard for operational excellence

Alissa Reporter helps users quickly verify that an NGS assay is performing as planned. With the built-in QC dashboard, users can immediately assess whether key quality control metrics of individual samples (or the entire run) are within the anticipated range. Alissa Reporter flags problematic samples and shows users where the QC metric has deviated from recommended values.

Alissa Reporter can track and display QC metrics longitudinally. By analyzing quality control data across runs, users can easily spot trends and deviations from expected performance parameters over time.

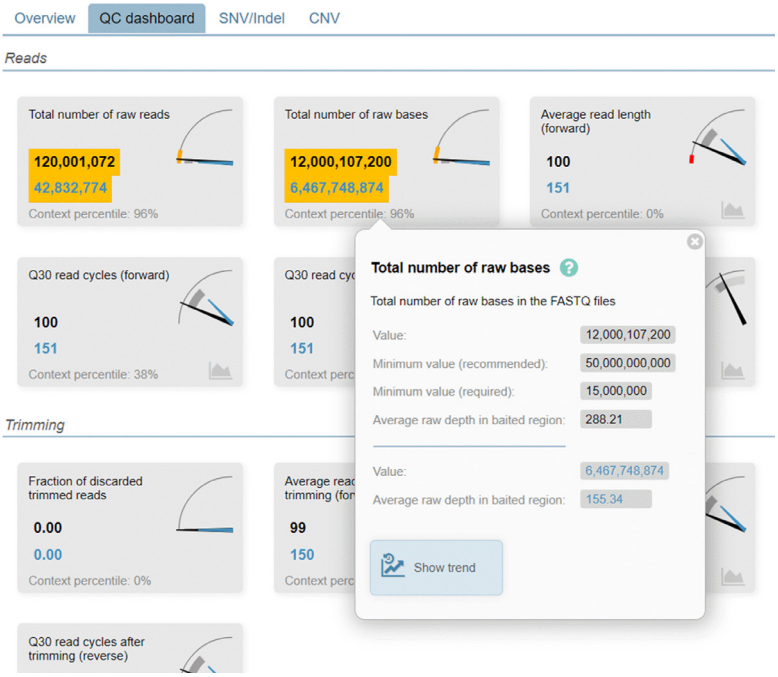

Figure 5. Alissa Reporter's QC dashboard helps you quickly find the metrics that matter most.

Virtual gene and/or regions panels

If users are only interested in analyzing a subset of genes or regions, Alissa Reporter's in silico filter enables the creation of virtual gene panels.

Create targeted gene panels in advance based on your subpanels of interest, or edit your selected panel on the fly. It is easy to manage in silico filters with Alissa Reporter's intuitive filtering functions. Simply select or upload the gene(s) and/or region(s) to be included, and Alissa Reporter will automatically filter the dataset based on this selection.

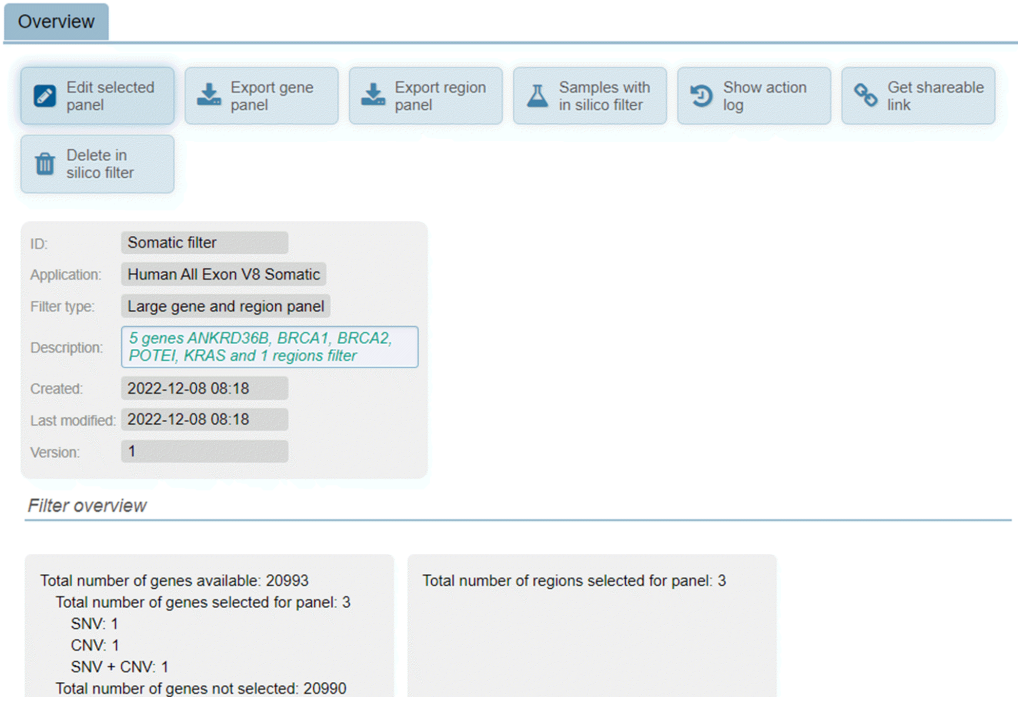

Figure 6. Filter based on your genes and/or regions of interest.

Predefined analysis pipelines

Through optimized analysis pipelines for SureSelect Human All Exon V7 and V8 and for SureSelect custom panels, users can assess their results with confidence.

The SureDesign import module in Alissa Reporter enables users to easily access their SureSelect custom panels.

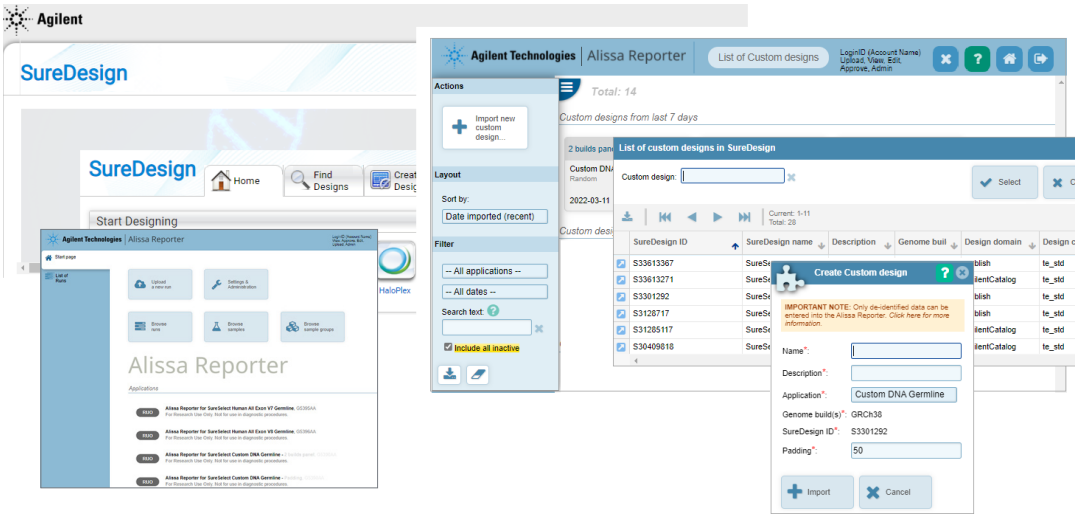

Figure 7. Use optimized analysis pipelines to run your SureSelect Human All Exon V7, V8 and custom panels. Import your SureSelect custom design into Alissa Reporter.

An end-to-end automated NGS software workflow

Alissa Reporter turns raw NGS FASTQ files into Variant Call Format (VCF) files for key files for Agilent SureSelect Human All Exon V7 and V8 germline and for custom germline applications. As part of the Agilent Alissa Clinical Informatics platform, Alissa Reporter seamlessly transfers data to the Alissa Interpret tertiary analysis solution for a fully integrated end-to-end NGS software workflow.

After the variant of interest has been identified in Alissa Interpret, users can easily link back to Alissa Reporter to visualize read pileups in Alissa Reporter's highly responsive, integrated genome browser.

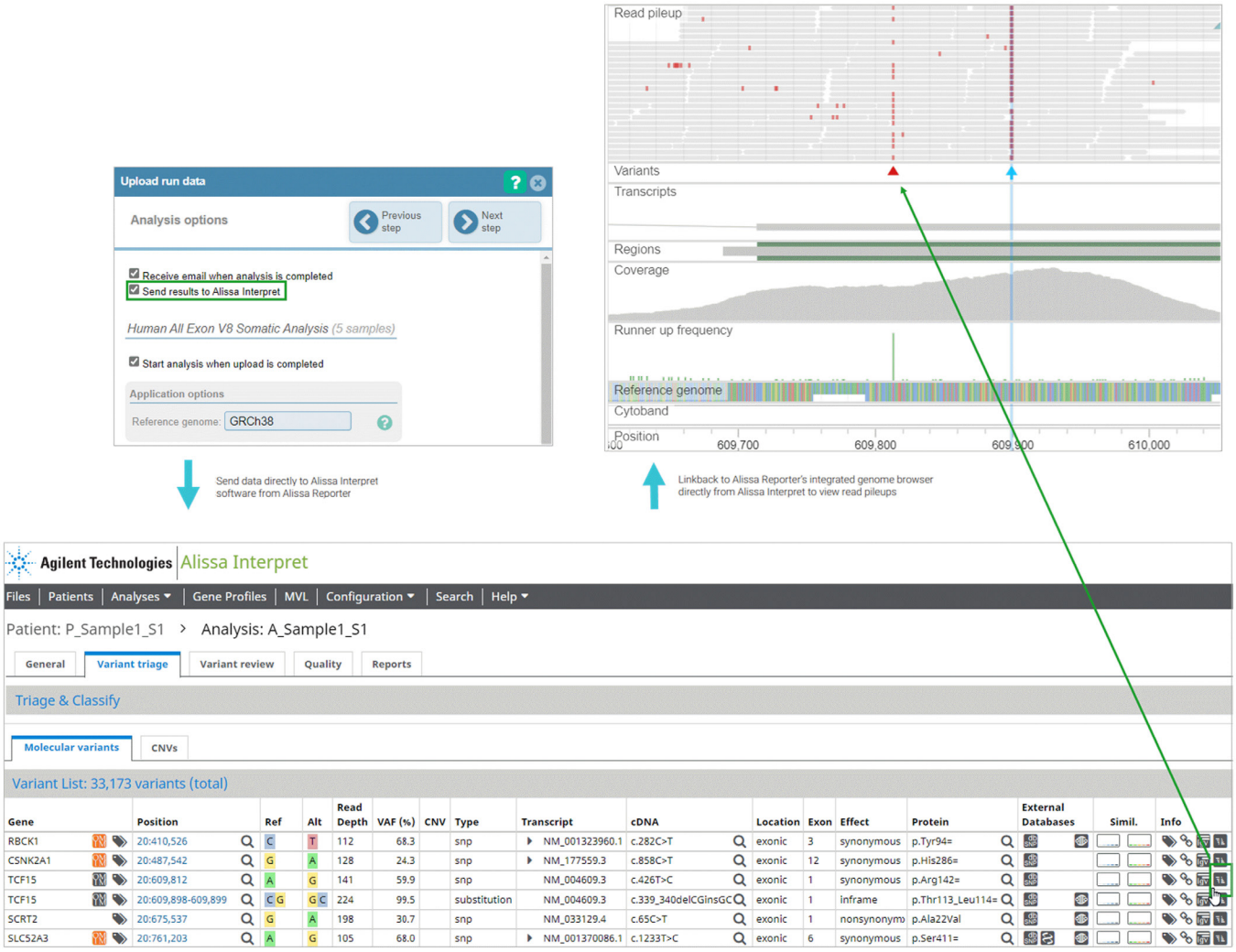

Figure 8. Send data directly from Alissa Reporter to Alissa Interpret for a streamlined NGS data analysis experience. Link back to Alissa Reporter to view read pileups for variants of interest.

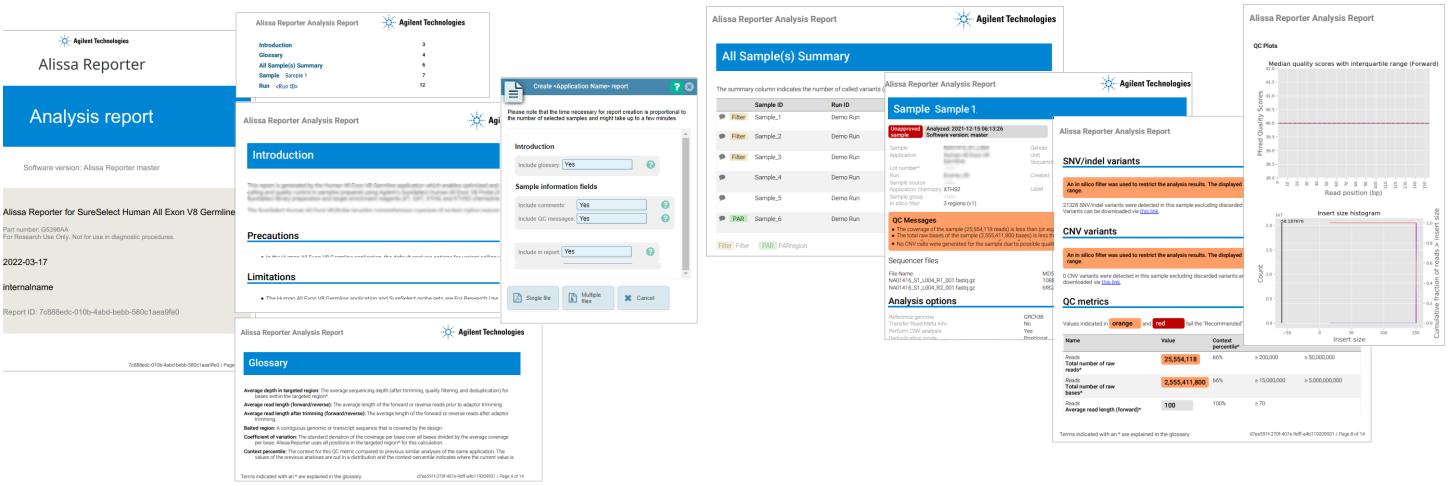

Figure 9. Download a PDF report of the secondary analysis results from Alissa Reporter. For further information regarding tertiary analysis in Alissa Interpret please visit our product page.

www.agilent.com

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Alissa Interpret is a USA Class I Exempt Medical Device, Europe CE IVD, Canada and Australia Class I IVD Device
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