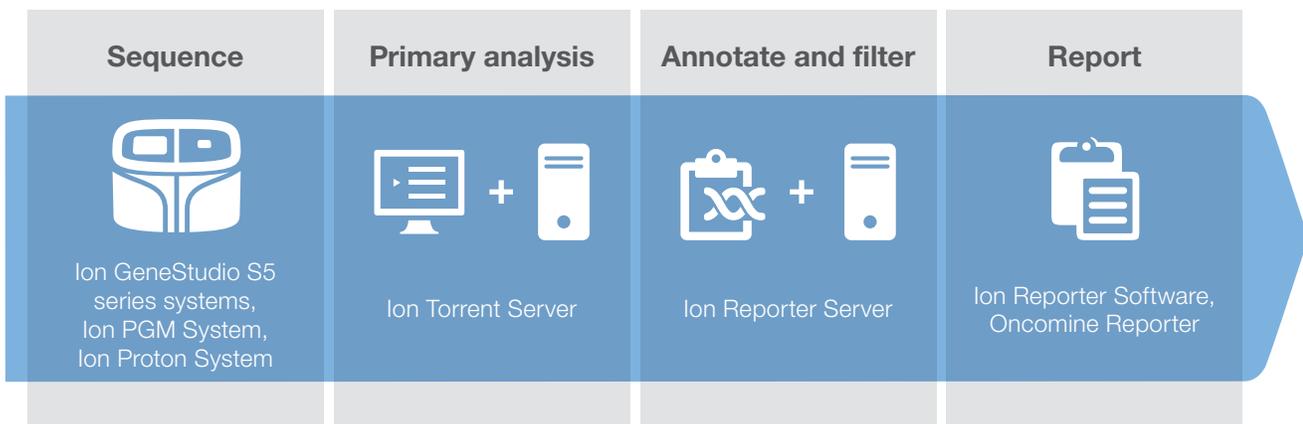# Fast and secure data analysis

Characterize sequencing variants efficiently and securely using the Ion Reporter Server

The Ion Reporter™ Server hosts a locally deployed instance of Ion Reporter™ Software, combining an optimized suite of simple data analysis tools with the control and access of a powerful computer server in your own building. Ion Reporter Software supports the analysis of data from Ion GeneStudio™ S5 series, Ion PGM™, or Ion Proton™ systems, covering a growing number of research applications, from human variant detection to microbial diversity. A complimentary version of Ion Reporter Software is available on Connect, our free, cloud-based solution.

Key benefits

- **Efficient**—fast upload and access to your data

- **Secure**—designed to enable protection and security for your data including e-signatures, audits, and records management

- **Automated**—push-button data analysis with preconfigured workflows

- **Convenient**—service, support, and software for one year, providing unlimited data analyses from multiple Ion Torrent™ sequencers

Sequence	Primary analysis	Annotate and filter	Report
Ion GeneStudio S5 series systems, Ion PGM System, Ion Proton System	Ion Torrent Server	Ion Reporter Server	Ion Reporter Software, Oncomine Reporter

Figure 1. Ion Torrent™ data analysis solutions easily integrate to automate your informatics needs by streamlining data analysis from sequencing data to final interpretive reports. Simple run-planning templates enable automated data transfer from the Ion Torrent™ Server to the Ion Reporter Server for variant analysis, including result filtering, annotation, and final report generation using Ion Reporter Software. Additionally, Ion Torrent™ Oncomine™ Reporter helps link variants to therapies, guidelines, and clinical trials and then create custom, lab-generated reports.

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Automated workflows for efficiency

Ion Reporter Software supports preconfigured workflows for many research applications, including cancer, inherited disease, reproductive health, and infectious disease research.

The Ion Reporter Server is built to automate the workflow from sample to report. When a sequencing run is initiated on an Ion Torrent sequencer, an Ion Reporter workflow can be selected as part of the sequencing run plan so that the data transfer and analysis are automated from run initiation to review of annotated variants. This helps save time and allows you to get answers faster with streamlined, automated data transfer and analysis. Further integrate Ion Reporter Software within your research lab environment with the provided APIs, including those for automated data extraction.

Ion Reporter Software advantages

• Located in your secure laboratory environment

• Configured specifically to handle the advanced analysis and annotation of Ion Reporter workflows

• Service, support, and software for one year

Remember to renew your Ion Reporter Software license each year so that you can continue to enjoy all of the benefits of the updated software and additional workflows.

Bioinformatics designed for accuracy

Managing, and ultimately interpreting, the significant quantities of variant data produced by next-generation sequencing (NGS) presents a formidable challenge. The Ion Reporter informatics workflow helps ensure you get high-quality data by prioritizing and annotating driver variants. It completes with a report that simplifies your bioinformatics path to discovery by enabling you to focus on finding the biological meaning of your data.

For example, for tumor mutational burden (TMB), a custom variant calling and germline variant filtering algorithm is used to accurately estimate somatic variants in the cancer research sample. Detection of SNPs, indels, CNVs, gene fusions, and aneuploidies in a single automated workflow is enabled by using our custom germline and somatic algorithms. Consistency across versions of the software is established by verifying each release with a mix of control and clinical research samples, measuring relevant variants that have been previously detected with another technology. These workflows can be used to analyze a variety of research samples, such as single samples, paired tumor/normal samples, and family trios. Workflows are flexible to enable custom optimization and can also be locked to enable controlled use without depending on the advanced skills of a bioinformatician.

Ion Reporter Server specifications
Dual 10-core E5 2.6 GHz CPUs
128 GB RAM
15 TB of usable storage
Ubuntu™ 18.04 operating system

Ordering information

Product	Cat. No.
Ion Reporter Server System (includes first-year software license and 3-hour online training)	4487118
Ion Reporter 1-year software license and hardware support for second and future years	ZG10SCIRLCLSRVR
Ion Reporter 1-year hardware support, for second and future years	ZG10SCIONSERVER
Ubuntu Operating System on-site upgrade by field support professional (including labor and travel)	A28867
Bioinformatics consulting plan (1 year)	ZGPCSCIONBFX
IT administration support contract (1 year)	ZGPCSCIONBFXSERV