

Ion Hi-Q View chemistry for the Ion PGM System

Our most advanced sequencing chemistry



Answer with greater confidence

The new Ion PGM™ Hi-Q™ View chemistry for the Ion Chef™ and Ion OneTouch™ 2 Systems offers powerful enhancements to the previous Hi-Q™ chemistry for improved variant detection accuracy. With this latest sequencing chemistry, we observed significant improvement in the total number of quality bases (total AQ20 bases) for the same targeted sequencing library when compared to the original Hi-Q chemistry (Figure 1). The improvement in the number of quality bases per targeted sequencing run was due to better end-to-end amplicon coverage, uniformity, and the percentage of amplicons without strand bias (Figure 2).

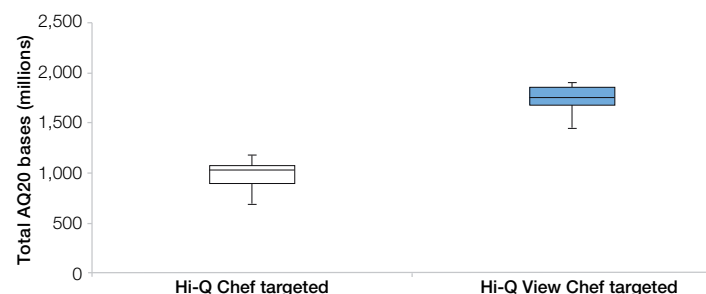


Figure 1. Significant improvements in total AQ20 bases with Hi-Q View chemistry. Comparison of total quality bases using a custom Ion AmpliSeq™ panel targeting ~48,000 human exonic amplicons. Compared with the Ion PGM™ Hi-Q™ Chef Kit (N=8), a 32% increase in the median AQ20 bases was observed using the new Ion PGM™ Hi-Q™ View Chef Kit (N=11). N=number of sequencing runs.

Hi-Q View chemistry enables:

- **Higher-confidence results**—reduced strand bias with improved amplicon end-to-end coverage and uniformity results in better variant calling for SNVs and indels
- **Convenient application and workflow flexibility**—support for up to 400-base reads using the Ion Chef System and OneTouch 2 System

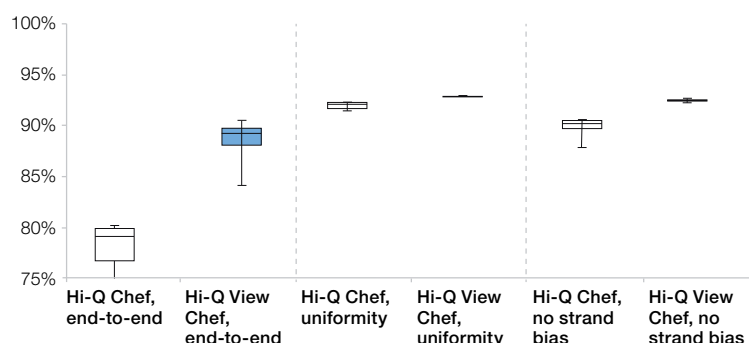


Figure 2. Improvements to targeted sequencing. Comparison of end-to-end amplicon coverage, uniformity, and number of amplicons with no strand bias using a custom Ion AmpliSeq panel targeting ~48,000 human exonic amplicons. Amplicons were more efficiently sequenced using the new Ion PGM Hi-Q View Chef Kit (N=11) when compared to the previous Ion PGM Hi-Q Chef Kit (N=8).

Enables accurate sequencing for robust variant detection

Hi-Q View chemistry was designed to deliver better sequencing performance than the previous Hi-Q chemistry for the Ion PGM™ System, while maintaining or improving the same high-quality variant calling. The Ion Hi-Q View chemistry for the Ion Chef System, when used for targeted sequencing of a custom ~48,000 amplicon Ion AmpliSeq panel, demonstrated improved single nucleotide variant (SNV) sensitivity (Figure 3A) compared with the previous Hi-Q chemistry, while decreasing the false positive rate for indel variants (Figure 3B).

Flexible solutions

Whether you're doing targeted sequencing using an Ion AmpliSeq™ panel or performing *de novo* assembly of bacterial genomes, Ion Hi-Q View chemistry enables a streamlined sequencing workflow for all research applications. With support for up to 400 base reads, the Ion PGM Hi-Q View kit helps make it easy to advance your research on your terms (Figure 4).

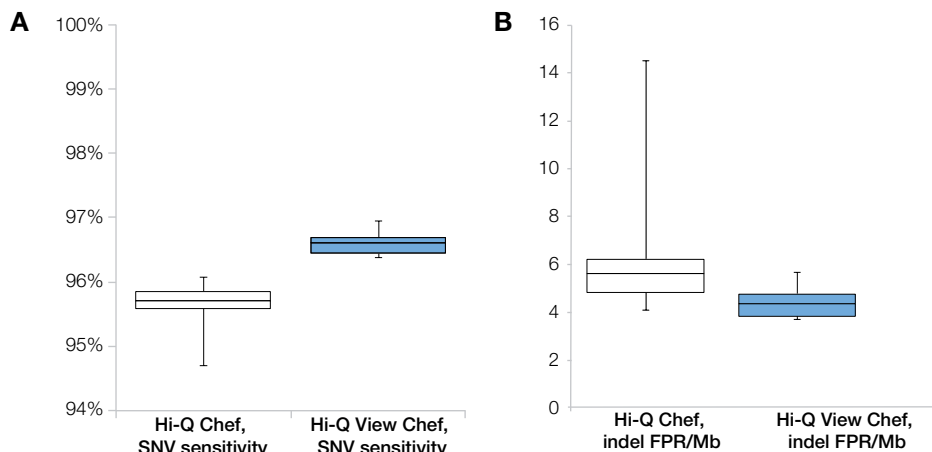


Figure 3. Variant calling is improved using Hi-Q View Chef chemistry for a custom Ion AmpliSeq panel. (A) Compared with the previous Ion PGM Hi-Q Chef Kit (N=8), single nucleotide variant (SNV) sensitivity was improved using the new Ion PGM Hi-Q View Chef Kit (N=11). (B) Compared with the previous Ion PGM Hi-Q Chef Kit (N=8), a 22% increase in the median false positive rate per megabase (FPR/Mb) was observed using the new Ion PGM Hi-Q View Chef Kit (N=11). N=number of sequencing runs.

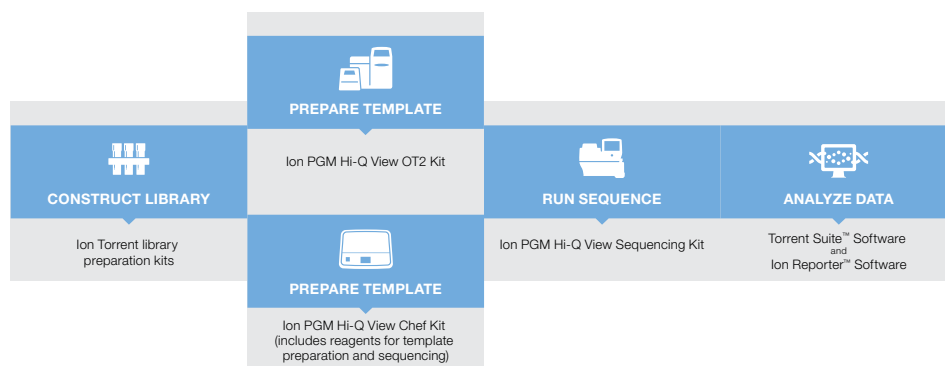


Figure 4. Streamlined Ion PGM System workflow with Ion PGM Hi-Q View chemistry. Ideal for both long- and short-read applications, the Ion PGM Hi-Q View kits fit seamlessly with the Ion Chef System and the Ion OneTouch 2 System workflows.

Ordering information

Product	Cat. No.
Ion Chef System	
Ion PGM Hi-Q View Chef Kit	A29902
Ion PGM Hi-Q View Chef 400 Kit	A30798
Ion PGM Wash 2 Bottle	A25591

Product	Cat. No.
Ion OneTouch 2 System	
Ion PGM Hi-Q View OT2 Kit	A29900
Ion PGM Hi-Q View Sequencing Kit	A30044
Ion PGM Wash 2 Bottle	A25591

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