

Qiagen's ultra-fast sequencing solution for COVID-19 cuts plastic use by 50%

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Kit supports analysis of over 6,000 samples simultaneously on highest-throughput sequencers



QIAGEN N.V. has announced the launch of QIAseq DIRECT SARS-CoV-2 Kit, a viral genome enrichment and library preparation solution that significantly reduces library turnaround times and plastics use compared with ARTIC project protocols (primer-based approaches for next-generation sequencing (NGS)).

The lab and bioinformatic protocols of the ARTIC network, an initiative funded by the Wellcome Trust, are considered the gold standard in NGS-based characterization of SARS-CoV-2 genomes.

QIAseq DIRECT SARS-CoV-2 supports sample multiplexing with up to 768 Dual Molecular Indices - unique markers tagged to molecules in a sample to eliminate errors from downstream analysis - in a library preparation workflow from extracted viral RNA that reduces turnaround time to as little as four hours. This also increases the amount of samples per sequencer to over 6,000 samples on the highest-throughput instruments.

The kit also cuts plastics usage by 50 per cent, drastically reduces hands-on time, requires no fragmentation or ligation reactions and can be readily automated with robotic liquid handlers. The viral enrichment approach delivers superior uniformity of coverage across the SARS-CoV-2 genome as well as deeper sequencing performance compared with the most widely used amplicon-based options.