

SARS-CoV-2 Research Panel

Four steps. One tube. Exceptional data.

NGS-based surveillance of SARS-CoV-2 demands sample prep that is robust to strain variants and is easy to implement at scale. The comprehensive SARS-CoV-2 Research Panel from Molecular Loop is just that.

Key Features & Benefits

Performance

- every base in the genome is captured by 7 – 8 probes (Illumina assay) or 22 probes (PacBio assay) for robust variant detection
- UDIs are included to allow for highly multiplexed assays

Simple 4-step workflow

- single-tube workflow that is easy to implement, automate, and scale
- colored master mixes make reagent addition foolproof

Design expertise

- Molecular Inversion Probe expert designer works on every custom project

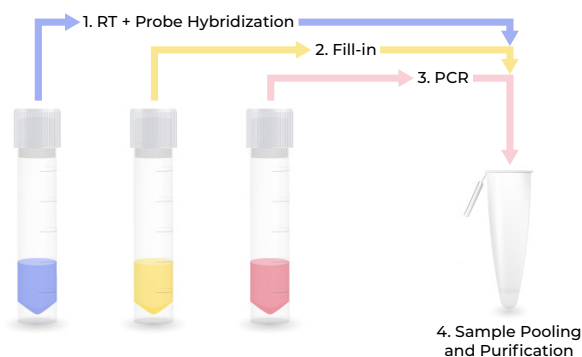


Figure 1. Molecular Loop's elegant 4-step workflow involves simple master mix additions to a single sample tube or well.

Redundant tiling ensures optimal target capture

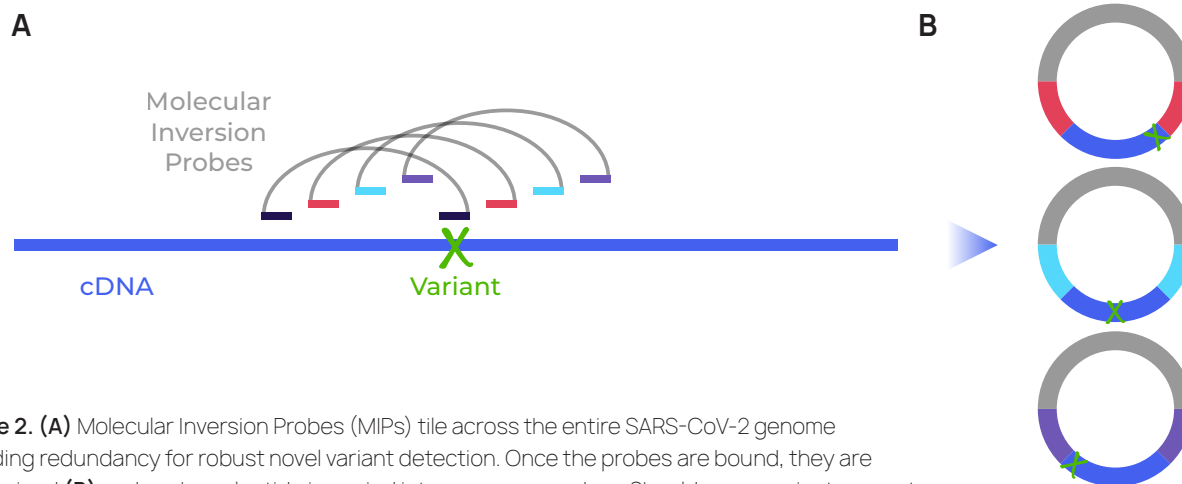


Figure 2. (A) Molecular Inversion Probes (MIPs) tile across the entire SARS-CoV-2 genome providing redundancy for robust novel variant detection. Once the probes are bound, they are circularized **(B)** and each nucleotide is copied into numerous probes. Should a new variant prevent one probe from binding, that region is still covered by adjacent probes. *Graphic simplified for clarity.*

Comprehensive coverage with real-world levels of RNA input

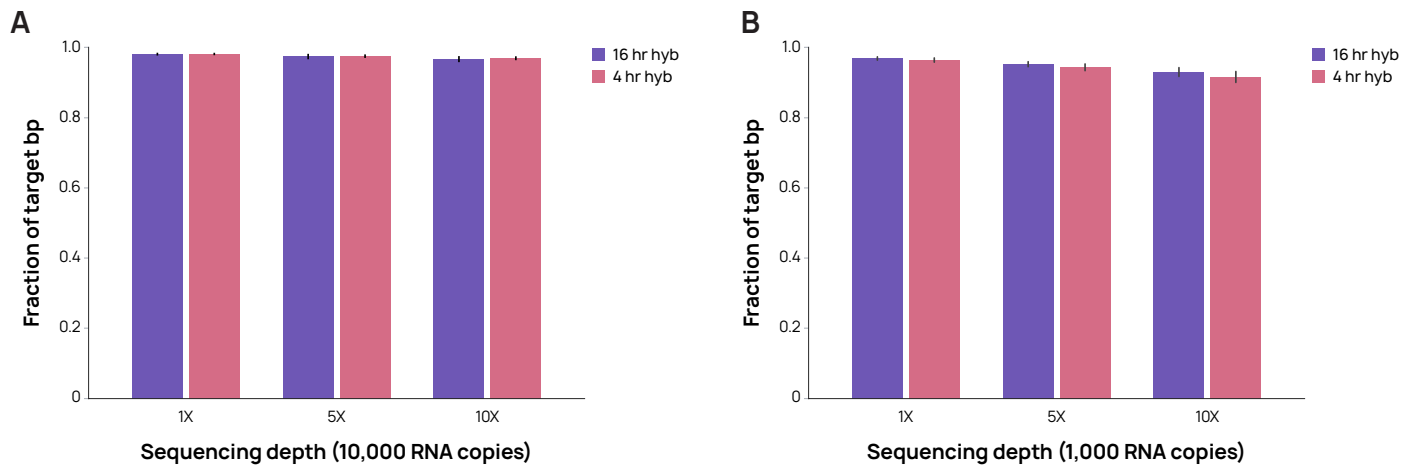


Figure 3. The panel provides comprehensive coverage of the SARS-CoV-2 genome with 125K read pairs at **(A)** 10,000 RNA input copies and **(B)** 1,000 RNA input copies.

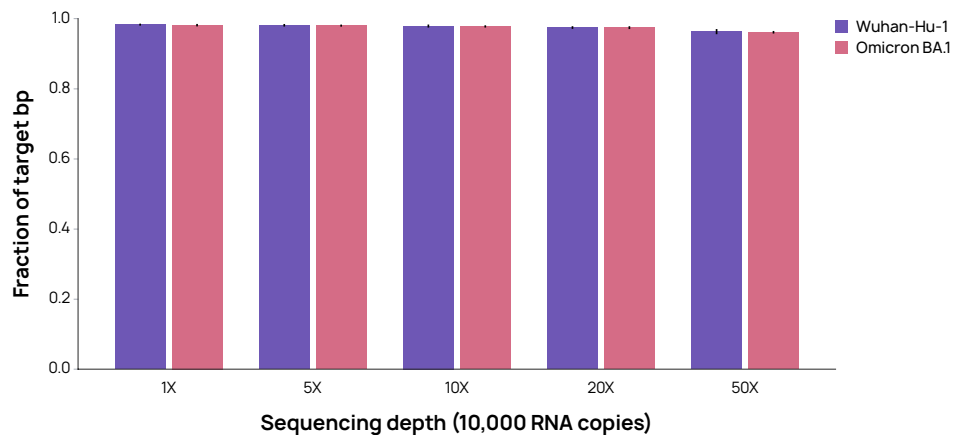


Figure 4. No panel revision has been required as the SARS-CoV-2 virus mutates. >98% of the Omicron genome achieves $\geq 5X$ coverage depth with 125K read pairs.



For more information on our Illumina or PacBio panels, visit us at: www.molecularloop.com/SARS-CoV-2 or email us at: sales@molecularloop.com.

Intended use: The SARS-CoV-2 NGS Research Panel is a nucleic acid capture-based research-use only assay intended for use in characterization and environmental monitoring of the SARS-CoV-2 virus. This product is for research use only. It is not intended for the diagnosis, prevention, or treatment of any disease or condition. Molecular Loop Biosciences, Inc. assumes no liability regarding use of the product in applications for which it is not intended.

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