

Whole Genome Sequencing

VS-WGS0116PHRUO*

VIASURE WGS NGS Solution is designed for comprehensive analysis of **bacterial genomes**, enabling species identification, genomic characterization and **antimicrobial resistance** analysis.

Designed for routine labs, combining streamlined library prep with fully automated analysis.

Technology

Library preparation workflow based on **enzymatic DNA fragmentation** followed by library construction and **indexing**.

Ensures uniform coverage for high-resolution genome analysis.

Workflow

- 01 **Library preparation.**
- 02 Sequencing.
- 03 **Bioinformatic analysis** with V-Xplora.

Hands-on time:

~30 minutes

Streamlined workflow minimizing hands-on steps and complexity.

Performance characteristics

- **Whole genome sequencing** for bacterial genomes.
- Genome assembly and downstream analysis with **V-Xplora**.
- Detection of **antimicrobial resistance** genes and point mutations.
- High-resolution typing for **epidemiology** and outbreak investigation.
- Multiplexing of up to **16 samples** per sequencing run.

Reagents and format

- **Ready-to-use** format.
- **Lyophilized, pre-dispensed** reagents.
- Optimized for **reproducibility** and ease of use.

Platform compatibility

- Designed for **short-read sequencing** technologies.
- Validated on **Illumina platforms** and **AVITI™** (Element Biosciences).
- Compatibility with **other platforms** (e.g., MGI) may require additional **library conversion** steps.

Applications

- **Bacterial species** identification.
- **Antimicrobial resistance** surveillance.
- **Phylogenetic** analysis.
- **Outbreak** investigation.

Data analysis

Using **VIASURE V-Xplora** software:

- ✓ FASTQ-to-report workflow.
- ✓ Automated genome assembly and analysis.
- ✓ Detection of resistance-associated genes and variants.
- ✓ Standardized report generation.
- ✓ Phylogenetic and comparative analysis tools.

No
bioinformatics
expertise
required

