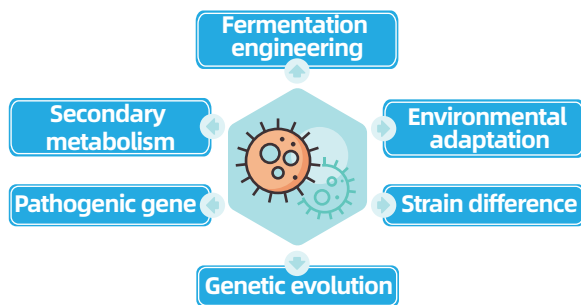


# Bacterial Genome Sequencing

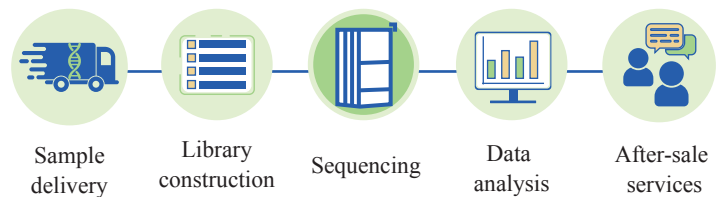
## Product Introduction

Biomarker Technologies provides whole genome, draft genome and complete genome sequencing of bacteria depending on specific research goal. Genome sequencing, assembly and functional annotation can be achieved by combining Next-generation sequencing + Third-generation sequencing to achieve high-level genome assembly and construct the complete zgenome of bacteria with zero gap.

## Application



## Service Workflow



## Bioinformation Product

### Genome sequencing:

- ① Bacterial whole genome sequencing-Illumina

### Genome assembly:

- ② Draft bacterial genome-Illumina
- ③ Complete bacterial genome-PacBio
- ④ Complete bacterial genome-Nanopore

## Service Advantages

- Multiple sequencing strategies are available for different bacterial genome research goals.
- In pathogenicity, resistance, environmental adaptability, metabolic pathways and other multi-angle to dig deeper into functional genes.
- Bacteria complete genome with 0 Gap guaranteed.
- Highly experienced in bacteria genome assembly with over 10,000 microbial genomes assembled.
- Professional after-sale technical support team fulfilling more specific research needs.



## Service Specifications

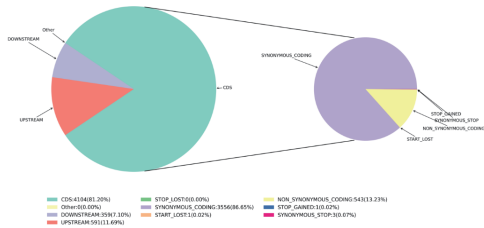
Library	Sequencing	Recommended data	Turnaround Time
Illumina	PE150	GS≤8M; 100X NGS	30
PacBio	ZMW	GS≤8M; 30X HIFI	30
Nanopore	ONT	GS≤8M; 100X (ONT+NGS)	25

## Sample Requirements

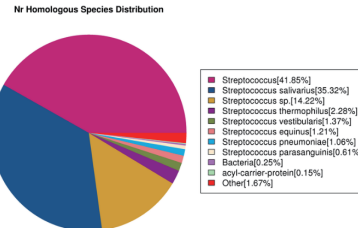
Platform	Qubit Conc. (ng/μL)	Amount (μg)	Volume (μL)	Purity
Illumina	1	0.06	20	OD260/280: 1.7-2.2; OD260/230: ≥1.0; Nanodrop/Qubit: 0.8-2.5
PacBio	20	1 μg/1 G ≥1.2	20	
Nanopore	40	2	20	

## Demo Results

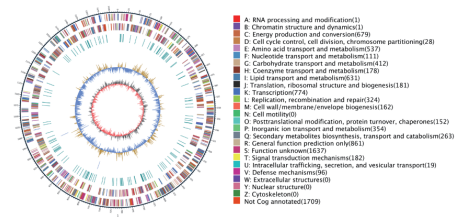
1. Bacterial whole genome sequencing  
-SNP annotation result statistics



2. Draft bacterial genome  
-Nr database annotation



3. Complete bacterial genome  
- Genome visualization



## Featured Publications

Year	Journal	Paper	Article	DOI
2023	Science Advances	Ampicillin-controlled glucose metabolism manipulates the transition from tolerance to resistance in bacteria	Bacterial resistance	10.1126/sciadv.ade8582
2023	International Journal of Molecular Sciences	Discovery of Bacteroides uniformis F18-22 as a Safe and Novel Probiotic Bacterium for the Treatment of Ulcerative Colitis from the Healthy Human Colon	Disease treatment	10.3390/ijms241914669
2022	Science of The Total Environment	Integrative chemical and omics analysis of the ammonia nitrogen removal characteristics and mechanism of a novel oligotrophic heterotrophic nitrification-aerobic denitrification bacterium	Pollution treatment	10.1016/j.scitotenv.2022.158519



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