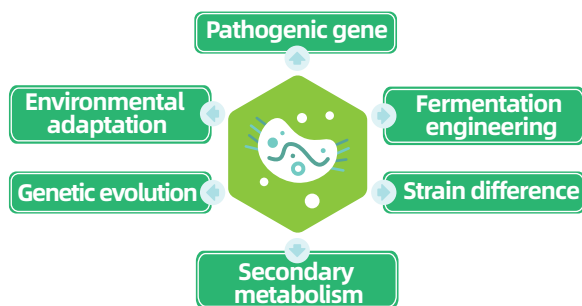


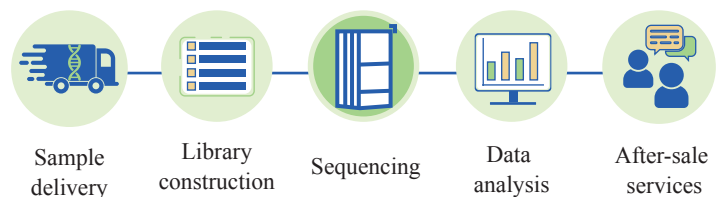
Fungal Genome Sequencing

In order to study the structure, function, and evolution of fungal genomes, BMKGENE provides whole genome re-sequencing, genome survey, draft genome, and fine genome sequencing and assembly services. To achieve more accurate genome assembly and functional annotation, next-generation sequencing data is combined with third-generation sequencing data for analysis, to help gain a deep insight into fungal biology.

Application



Service Workflow



Fungal Genome Solutions

Option 1 Genome re-sequencing:

- Fungal whole genome sequencing (WGS): SNP calling.

Option 2 Genome assembly:

- Fungal Genome Survey (NGS): Genome estimation.
- Fungal Draft Genome (NGS): Genome component analysis and function annotation.
- Fungal Fine Genome (TGS+NGS): Genome component analysis and function annotation.

Service Advantages

- Unlock the power of fungal genomes with our diverse sequencing strategies.
- Delve into the depths of functional genes: uncover pathogenicity, resistance, adaptability, and more.
- Gain comprehensive insights into fungal genomes: explore detailed information and unravel their mysteries.
- Extensive experience: over 10,000 microbial genomes assembled with precision in fungal genome assembly.
- Professional after-sale technical support team fulfilling more specific research needs.

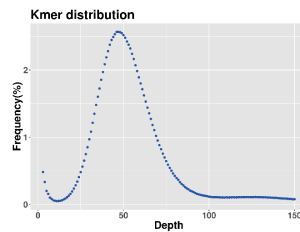
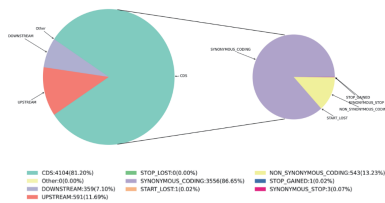
Service Specifications

Library	Read Length	Recommended Data
Illumina	PE150	100X NGS (Survey: 50X NGS)
PacBio	HiFi-15 Kb	30X HiFi + 50X NGS
Nanopore	10-20 Kb	100X ONT + 50X NGS

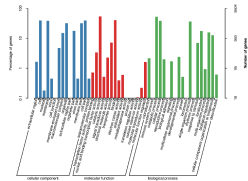
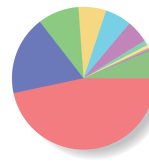
Sample Requirements

Platform	Qubit Conc. (ng/μL)	Amount (μg)	Volume (μL)	Purity
Illumina	1	0.06	20	OD260/280: 1.7-2.2; OD260/230: ≥ 1.6; Nanodrop/Qubit: 0.8-2.5
PacBio	20	2	20	
Nanopore	40	2	20	

Demo Results



Nr Homologous Species Distribution



1. SNP classification and annotation
2. K-mer depth distribution
3. Coding gene annotation
4. GO database annotation

Featured Publications

Year	Journal	Article	Applications	DOI
2023	Scientific Data	Gapless genome assembly of <i>Fusarium verticillioides</i> , a filamentous fungus threatening plant and human health	Genome evolution	10.1038/s41597-023-02145-8
2023	Journal of Fungi	Genetic and molecular evidence of a tetrapolar mating system in the edible mushroom <i>grifola frondosa</i>	Genetics and hybrid	10.3390/jof9100959
2023	Plant Disease	Genome resources for four <i>clarireedia</i> species causing dollar spot on diverse turfgrasses	Disease treatment	10.1094/PDIS-08-22-1921-A



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