

ONE DAY ONE GENOME

Microbacterium oryzae



Isolated from rice field soil, it offers potential applications in *Plant-microbe* symbiosis and *Agriculture*

Quality of Genome Assembly and Annotation:

Results from indigenously developed **BHARAT** analysis pipeline: (**Bacterial Hybrid genome Assembly and Rapid Annotation Toolset**)

Table 1: Assembly Details

Contigs	1
GC Content	71.12 %
Contig L50	1
Genome length	3,032,855 bp
Contig N50	3,032,855

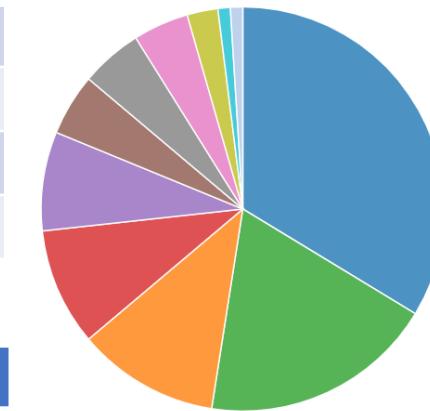
Table 2: Annotated Genome Features

CDS	3,692
tRNA	45
Repeat Regions	16
rRNA	9

Table 3: Antimicrobial Resistance Genes

AMR Mechanism	Genes
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Regulator modulating expression of antibiotic resistance genes	MtrA, MtrB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Antibiotic target replacement protein	FabL-like

Subsystem Analysis



Subsystem (Subsystems, Genes)

METABOLISM	(68, 505)
PROTEIN PROCESSING	(38, 144)
ENERGY	(23, 184)
STRESS RESPONSE, DEFENSE, VIRULENCE	(19, 90)
DNA PROCESSING	(16, 87)
RNA PROCESSING	(10, 56)
CELLULAR PROCESSES	(10, 30)
MEMBRANE TRANSPORT	(9, 45)
CELL ENVELOPE	(5, 11)
MISCELLANEOUS	(2, 4)
REGULATION AND CELL SIGNALING	(2, 3)

Genome Assembly

