Government of India
Ministry of Science & Technology
Department of Biotechnology

BRIC a DBT Organization NABI Biotechnology & Biomanufacturing

ONE DAY ONE GENOME

Bacillus subtilis

This novel bacterium demonstrated potent antifungal activity against major plant pathogens of Indian mustard, Brassica juncea

Bacillus subtilis **Genome Accession Number: CP192440.1**

Quality of Genome Assembly and Annotation:

Results from indigenously developed **BHARAT** analysis pipeline: (**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details	
Contigs	1
GC Content	43.84
Contig L50	1
Genome length	4,108,214 bp
Contig N50	4,108,214

Table 2: Annotated Genome Features	
CDS	4,264
tRNA	87
Repeat Regions	30
rRNA	30

Subsystem Analysis

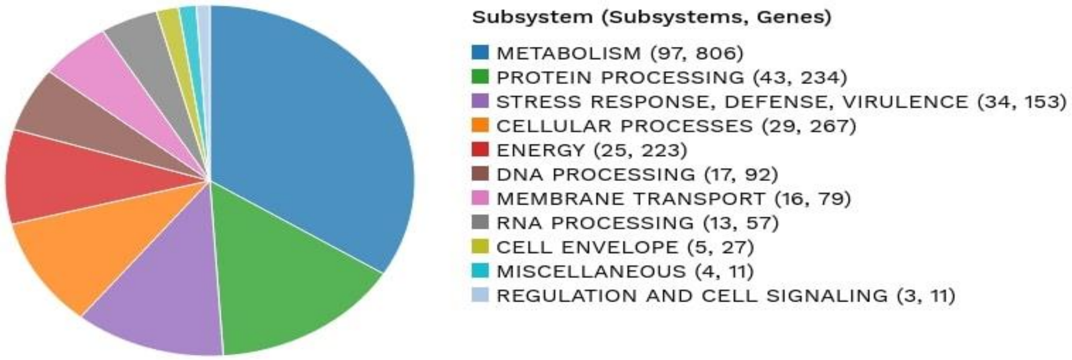

Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	**Genes**
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Antibiotic target protection protein	BcrC
Efflux pump conferring antibiotic resistance	BceA, BceB, EbrA, EbrB, Lmr(B), YkkCD
Gene conferring resistance via absence	gidB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA, MprF
Regulator modulating expression of antibiotic resistance genes	BceR, BceS, LiaF, LiaR, LiaS
Antibiotic inactivation enzyme	ANT(6)-I, FosB, Vgb(A), Vgb(B)

Genome Assembly