Government of India
Ministry of Science & Technology
Department of Biotechnology

BRIC | ILS INSTITUTE OF LIFE SCIENCES

One Day One Genome

Pseudomonas phenolilytica sp. nov

The organism degrades phenol, a key environmental pollutant with efficiency and resilience

A cleaner and greener future

- Bioremediation
- Waste management
- Tackling toxic pollutants

***Pseudomonas phenolilytica* sp. nov. (RBPA9^{T})** **Genome Accession Number: CP058908**

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	64.64
Contig L50	1
Genome length	3,922,746 bp
Contig N50	3,922,746

Table 2: Annotated Genome Features

CDS	3,709
tRNA	61
Repeat Regions	20
rRNA	12

Subsystem Analysis

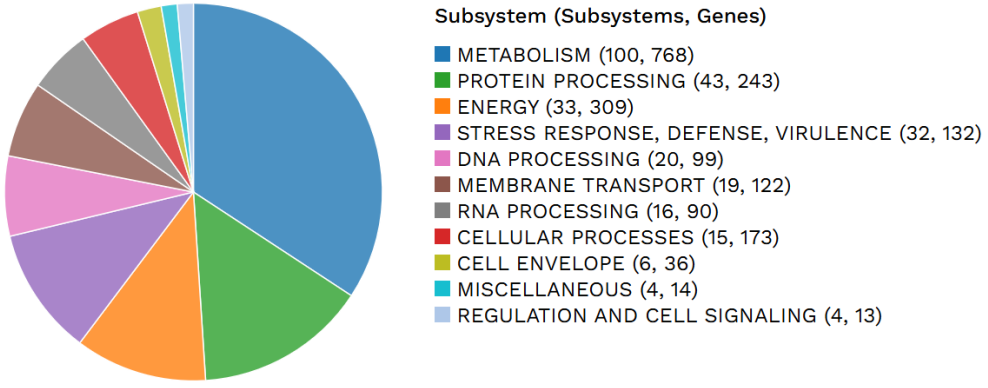

Table 3: Antimicrobial Resistance Genes

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
Efflux pump conferring antibiotic resistance	MdtABC-OMF, MdtABC-TolC, MexAB-OprM, MexCD-OprJ, MexCD-OprJ system, MexEF-OprN, MexEF-OprN system, MexJK-OprM/OpmH, TolC/OpmH
Regulator modulating expression of antibiotic resistance genes	OxyR
Protein modulating permeability to antibiotic	OccK5/OpdH, OprD family, OprF
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA

Genome Assembly