



Government of India
Ministry of Science & Technology
Department of Biotechnology

संग्रह नम्बर

ONE DAY ONE GENOME

Pseudomonas sp. HS6

It produces a cold-active lipase effective across a broad temperature range, making it suitable for eco-friendly detergents

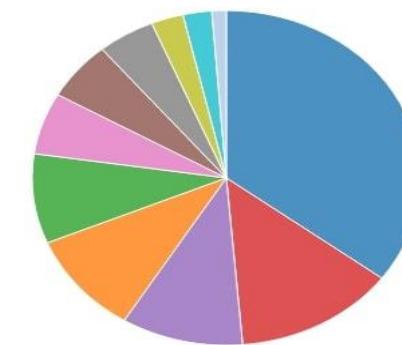


Quality of Genome Assembly and Annotation:Results from indigenously developed **BHARAT** analysis pipeline: (**Bacterial Hybrid genome Assembly and Rapid Annotation Toolset**)**Table 1: Assembly Details**

Contigs	1
GC Content	60.08
Contig L50	1
Genome length	6,547,752 bp
Contig N50	6,547,752

Table 2: Annotated Genome Features

CDS	5,927
tRNA	65
Repeat Regions	37
rRNA	3

**Subsystem Analysis**

Subsystem (Subsystems, Genes)
METABOLISM (118, 1116)
PROTEIN PROCESSING (45, 251)
STRESS RESPONSE, DEFENSE, VIRULENCE (34, 188)
MEMBRANE TRANSPORT (33, 326)
ENERGY (29, 310)
DNA PROCESSING (20, 100)
CELLULAR PROCESSES (19, 164)
RNA PROCESSING (16, 88)
CELL ENVELOPE (9, 81)
MISCELLANEOUS (8, 57)
REGULATION AND CELL SIGNALING (4, 20)

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 replacement protein	FabG, HtdX
Efflux pump conferring antibiotic resistance	EmrAB-OMF, EmrAB-TolC, MacA, MacB, MdtABC-OMF, MdtABC-TolC, MexAB-OprM, MexEF-OprN, MexEF-OprN system, MexHI-OpmD, MexHI-OpmD system, MexJK-OprM/OpmH, MexVW-OprM, TolC/OpmH, TriABC-OpmH
Gene conferring resistance via absence	gidB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA,
Regulator modulating expression of antibiotic resistance genes	OxyR

Genome Assembly