



Government of India
Ministry of Science & Technology
Department of Biotechnology

सरकारी वाची



NATIONAL CENTER FOR CELL SCIENCE

ONE DAY ONE GENOME

Peteryoungia desertarenae

It produce exopolysaccharides like glucuronan which has applications in the food industries



Quality of Genome Assembly and Annotation:

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

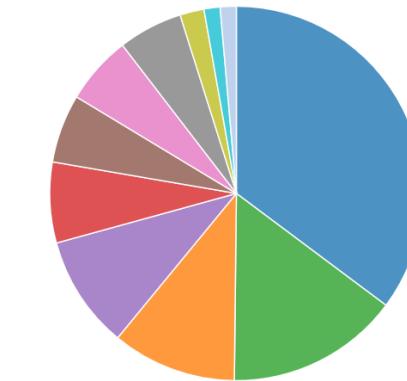
Table 1: Assembly Details

Contigs	3
GC Content	58.62 %
Contig L50	1
Genome length	4,342,374 bp
Contig N50	3,590,542

Table 2: Annotated Genome Features

CDS	4,376
tRNA	53
Repeat Regions	46
rRNA	9

Subsystem Analysis



Subsystem (Subsystems, Genes)

- METABOLISM (101, 787)
- PROTEIN PROCESSING (43, 218)
- ENERGY (31, 294)
- STRESS RESPONSE, DEFENSE, VIRULENCE (28, 136)
- CELLULAR PROCESSES (20, 150)
- MEMBRANE TRANSPORT (17, 110)
- DNA PROCESSING (17, 78)
- RNA PROCESSING (16, 61)
- CELL ENVELOPE (6, 32)
- MISCELLANEOUS (4, 13)
- REGULATION AND CELL SIGNALING (4, 10)

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 inactivation enzyme	AAC(6')-Ic,f,g,h,j,k,l,r-z
Regulator modulating expression of antibiotic resistance genes	OxyR
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA

Genome Assembly

