

Arthrobacter globiformis mrc11 from cave deposit of Manipur having antimicrobial potential



Isolation

Isolated from cave deposit of Khangkhui cave, Manipur, India



Ukhrul district of Manipur



Khangkhui cave

Importance

Antimicrobial activity

Application

Antimicrobial drug development.

Organism & Genome details

Arthrobacter globiformis mrc11

Accession no. NZ_QLNP00000000

Genome size is 4.89 Mb



***Arthrobacter globiformis* (mrc11) Genome Accession Number: [NZ_QLNP01000001.1](#)**

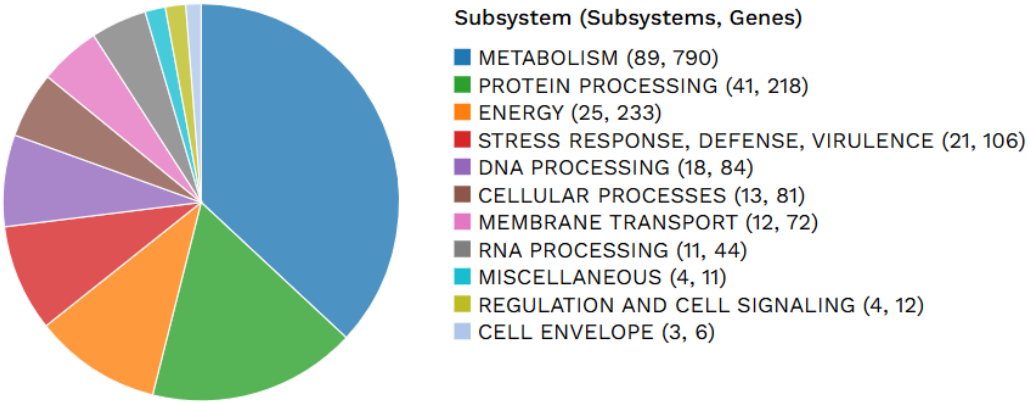
Quality of Genome Assembly and Annotation:
Results from indigenously developed **BHARAT** analysis pipeline:
(**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details	
Contigs	105
GC Content	65.89
Contig L50	10
Genome length	4,892,409 bp
Contig N50	139,250

Table 2: Annotated Genome Features	
CDS	4,596
tRNA	54
rRNA	7
Repeat Regions	0

Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic activation enzyme	KatG
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
Antibiotic target replacement protein	FabG, FabL-like, HtdX
Gene conferring resistance via absence	gidB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Regulator modulating expression of antibiotic resistance genes	LpqB, MtrA, MtrB

Subsystem Analysis



Genome Assembly

