

जैव प्रौद्योगिकी विभाग Department of Biotechnology Ministry of Science & Technology Government of India

One Day One Genome



राष्ट्रीय जैवचिकित्सा जीनोमिक्स संस्थान National Institute of Biomedical Genomics

Aeromonas veronii (NIBMG_HMR_23)

Mostly found in water bodies and opportunistic pathogen in immunocompromised

humans

Resistant to Antimicrobials and produces biofilms

Isolated from Diabetic Foot Ulcers Genome Sequencing will provide Targeted Treatment Opportunities

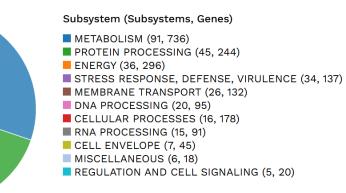
Aeromonas veronii (NIBMG_HMR_23) Genome Accession Number: INS0005656

Quality of Genome Assembly and Annotation:

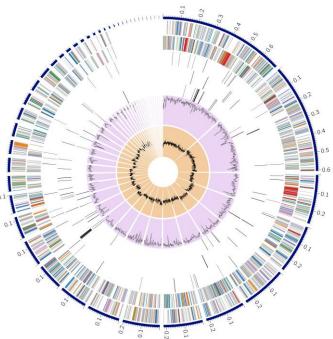
Results from indigenously developed **BHARAT** analysis pipeline: (**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details		Table 2: Annotated Genome Features	
Contigs	44	CDS	4,035
GC Content	59.02	tRNA	99
Contig L50	6	rRNA	3
Genome length	4,342,418 bp	Repeat Regions	0
Contig N50	218 334		

Subsystem Analysis



Genome Assembly



Contig N50	218,334			
Table 3: Antimicrobial Resistance Genes				
AMR Mechanism		Genes		
Antibiotic activation enzyme		KatG		
Antibiotic inactivation enzyme		ChpA family		
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		
Efflux pump conferring antibiotic resistance		MacA, MacB, MdtL, ToIC/OpmH		
Protein altering cell wall charge conferring antibiotic resistance		GdpD, PgsA		
Regulator modulating expression of antibiotic resistance genes		H-NS, OxyR		