



Government of India
Ministry of Science & Technology
Department of Biotechnology



One Day One Genome

Mammaliicoccus lentus

Commonly found on the skin of farm animals, the organisms can act as a reservoir of AMR genes



Mammaliicoccus lentus

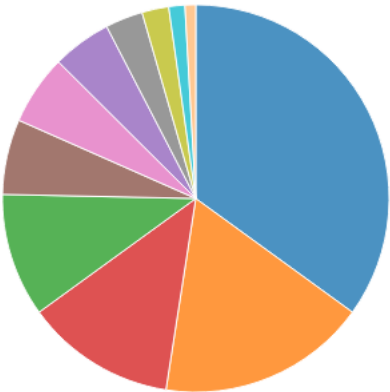
Genome Accession Number: INRP000200

Quality of Genome Assembly and Annotation:

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

Table 1: Assembly Details	
Contigs	54
GC Content	31.71
Contig L50	10
Genome length	2,848,578 bp
Contig N50	77,871

Table 2: Annotated Genome Features	
CDS	2,833
tRNA	28
rRNA	3



Subsystem Analysis

Subsystem (Subsystems, Genes)	
METABOLISM	(78, 463)
PROTEIN PROCESSING	(39, 205)
STRESS RESPONSE, DEFENSE, VIRULENCE	(28, 99)
ENERGY	(23, 180)
DNA PROCESSING	(14, 56)
RNA PROCESSING	(13, 51)
CELLULAR PROCESSES	(11, 59)
MEMBRANE TRANSPORT	(7, 29)
MISCELLANEOUS	(5, 14)
REGULATION AND CELL SIGNALING	(3, 10)
CELL ENVELOPE	(2, 7)

Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic inactivation enzyme	BlaZ family, FosB, Mph(C) family
Antibiotic target protection protein	Sal(A)
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
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA, MprF
Efflux pump conferring antibiotic resistance	BceA, BceB, NorA
Gene conferring resistance via absence	gidB
Regulator modulating expression of antibiotic resistance genes	BceR, LiaF, LiaR, LiaS

Genome Assembly

