



Government of India
Ministry of Science & Technology
Department of Biotechnology
संवर्धन जगत

BRIC IBSD
a DBT Organization
Promoting Bioresources

ONE DAY ONE GENOME

Lacticaseibacillus paracasei

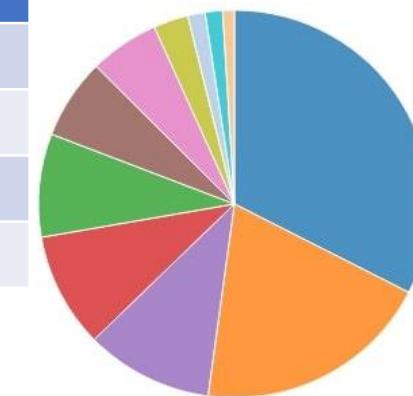


- Isolated from traditional curd of Manipur
- Can be used as probiotic supplement

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

Table 1: Assembly Details	
Contigs	3
GC Content	46.32
Contig L50	1
Genome length	3,366,751 bp
Contig N50	3,119,956

Table 2: Annotated Genome Features	
CDS	3,436
tRNA	54
Repeat Regions	217
rRNA	3



Subsystem (Subsystems, Genes)

METABOLISM	(68, 397)
PROTEIN PROCESSING	(41, 205)
STRESS RESPONSE, DEFENSE, VIRULENCE	(22, 81)
DNA PROCESSING	(20, 107)
ENERGY	(18, 172)
CELLULAR PROCESSES	(14, 74)
RNA PROCESSING	(12, 45)
MEMBRANE TRANSPORT	(6, 18)
REGULATION AND CELL SIGNALING	(3, 9)
CELL ENVELOPE	(3, 9)
MISCELLANEOUS	(2, 3)

Table 3: Antimicrobial Resistance Genes

AMR Mechanism	Genes
Antibiotic target in susceptible species	Alr, Ddl, EF-G, EF-Tu, folA, Dfr, gyrA, gyrB, Iso-tRNA, kasA, MurA, rpoB, rpoC, S10p, S12p
Gene conferring resistance via absence	gidB
Antibiotic target replacement protein	FabK
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA, MprF
Regulator modulating expression of antibiotic resistance genes	LiaF, LiaR, LiaS

Genome Assembly