

*Rhizobium indicum* (MCC 3961) Genome accession number: [GCA\\_005862305.2](#)

*Rhizobium* isolated from pea root nodules at high altitudes (4,115 m) plays a vital role in nitrogen fixation, supporting high-altitude agriculture

Its Genome reveals a complete set of nitrogen fixation genes and metabolic pathways for plant growth promotion, emphasizing its potential in enhancing agricultural productivity in challenging environments

Empowering High-Altitude Agriculture: Nitrogen Fixation for Sustainable Farming in Extreme Environments!

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	6
GC Content	60.78
Plasmids	0
Contig L50	1
Genome Length	7,533,049 bp
Contig N50	5,030,384
Chromosomes	0

Table 2. Annotated Genome Features

CDS	7,636
Repeat Regions	97
tRNA	52
rRNA	9
Partial CDS	0
Miscellaneous RNA	0
Job ID	annotation_1993704

Organism name	Genome Accession number	Culture type	Isolated from	Pathogenicity	Genome Size	No. of Genes	Pathogenic genes	Importance
<i>Rhizobium indicum</i> (MCC 3961)	<a href="#">GCA_005862305.2</a>	Gram-negative, aerobic, rod-shaped and motile	Root nodules of pea	Non pathogenic	7,533,049 base pair	7,636	MacA, TriABC-OpmH, GdpD, PgsA	Could be useful for high altitude agriculture