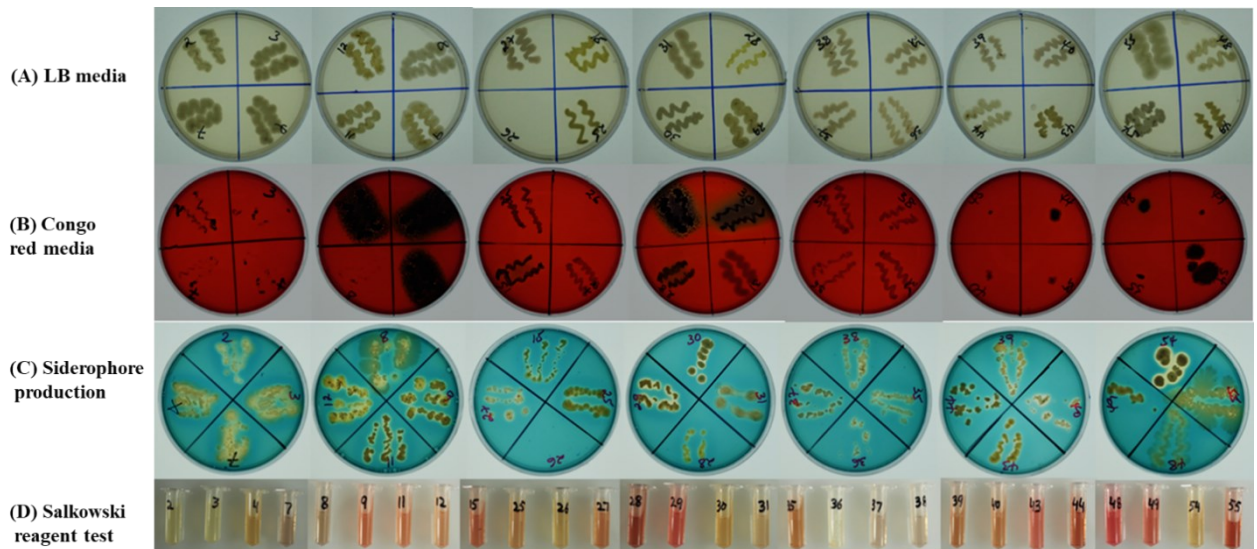
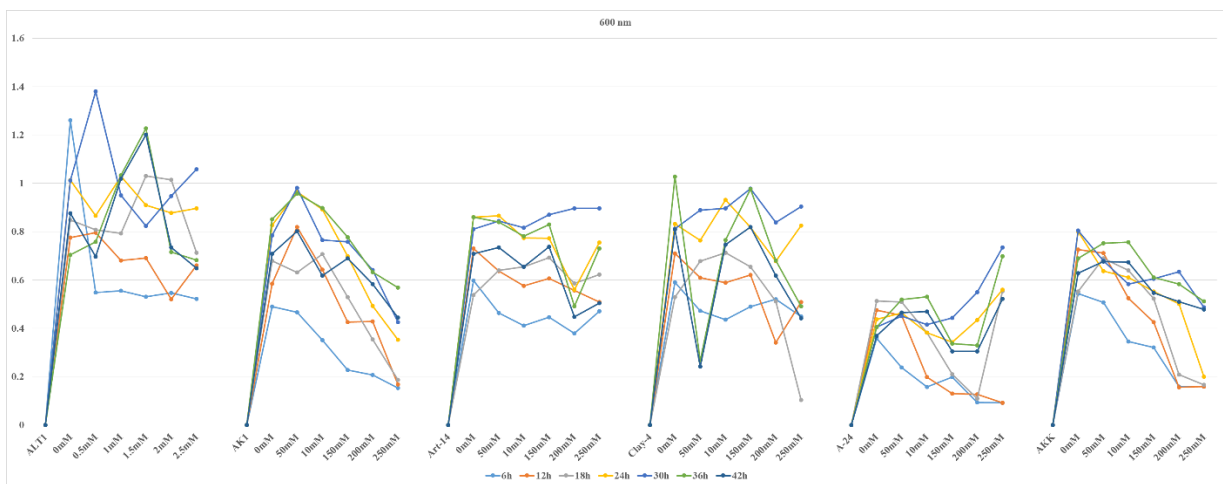


Supplementary Materials

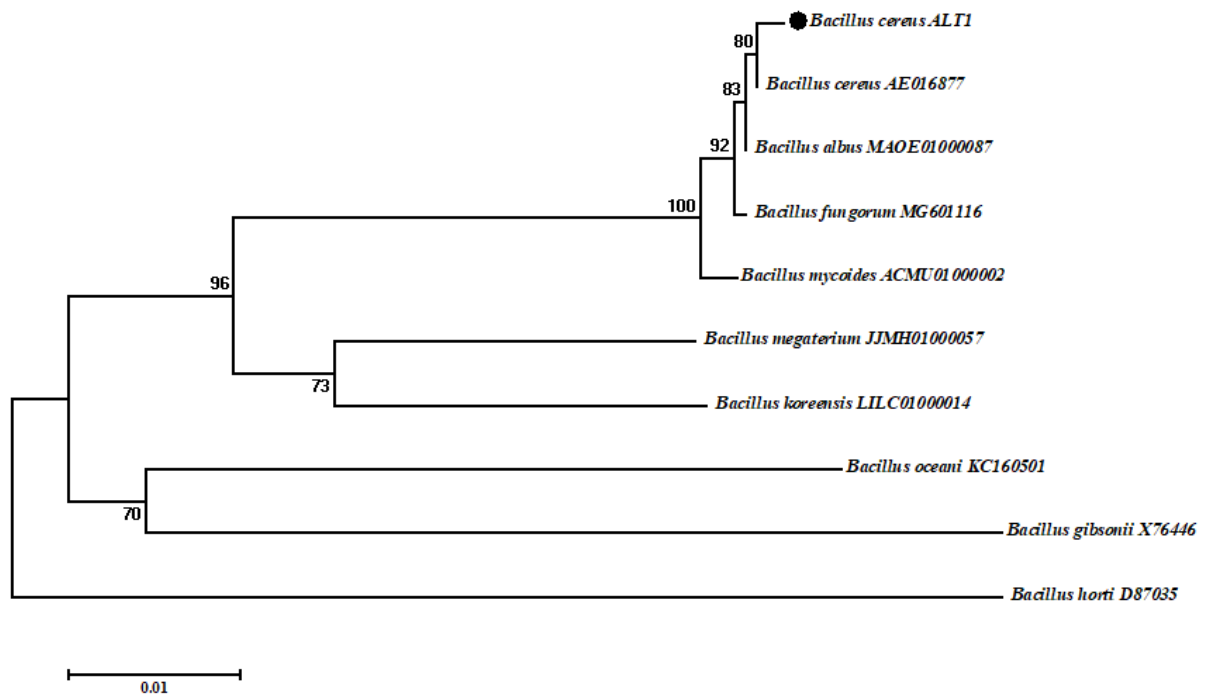
Supplementary Figure 1. Bacterial isolates assessed for beneficial role in plant growth-promoting activities. (A) LB media plates; (B) exopolysaccharide (EPS) activity on Congo red medium; (C) chromeazuroil "S" agar plates for siderophore production; (D) Salkowski reagent assay for IAA production.



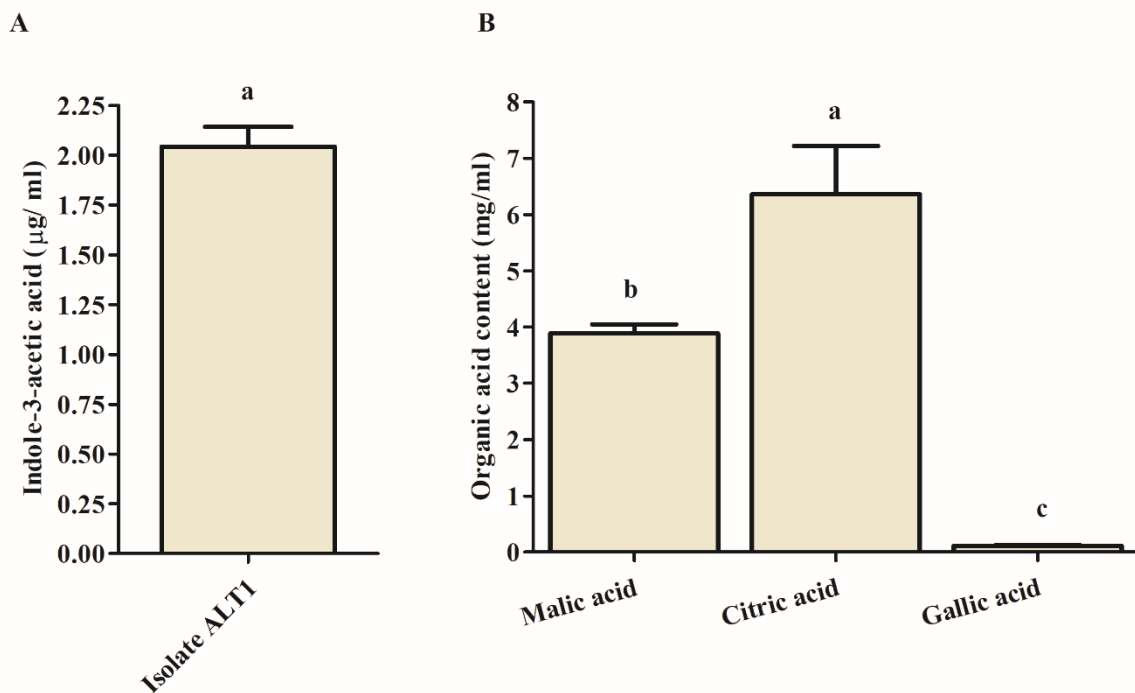
Supplementary Figure 2. Growth of plant growth-promoting rhizospheric (PGPR) bacteria showing multiple traits. PGPR bacteria were grown on LB media supplemented with 0, 0.5, 1, 1.5, 2, and 2.5 mM Cd for 42 h and the growth was examined using spectrophotometer at 600 nm. Each data point is the mean of three replication.



Supplementary Figure 3. Phylogenetic tree of ALT1, which was constructed using 16S rRNA sequences by neighbor joining (NJ) and maximum-likelihood methods.



Supplementary Figure 4. Quantification of IAA and organic acids produced by the isolate ALT1. (A) GC-MS-SIM analysis of IAA content in the culture broth of isolate ALT1 and (B) organic acid quantified by HPLC relative to their respective standards. Each data point is the mean of three replications and error bars represent standard errors. The bars with different letters are significantly different from each other as evaluated by Duncan's multiple range test.



Supplementary Table 1. GC–MS–SIM conditions used for analysis and quantification of the ABA.

| | |
|------------------|---------------------------------------------------------------------------------------------------------|
| Equipment | Hewlett-Packard 6890, 5973N Mass Selective Detector |
| Column | HP-1 capillary column (30m×0.25mm i.d. 0.25µm film thickness) (J and W Scientific Co., Folsom, CA, USA) |
| Carrier gas | He (40 mL/min.); head pressure of 30 kPa |
| Source temp. | 250 °C |
| Oven conditions | ABA : 60 °C (1min.) → 15 °C/min. → 200 °C →5 °C/min. → 250 °C →10 °C /min → 280 °C |
| Injector temp. | 200 °C |
| Ionizing voltage | 70 ev |

Supplementary Table 2. HPLC conditions used for analysis and quantification of the SA.

| | |
|------------|-----------------------------------------------------|
| Equipment | Shimadzu LC-10 |
| Column | HP hypersil ODS (particle size 5µm, pore size 120Å) |
| Wavelength | Excitation 305 nm, Emission 365 nm |
| Detector | RF-10Ax1 (fluorescence detector) |
| Solvent A | 100% MeOH |
| Solvent B | 100% water in 0.5% acetic acid |
| Flow rate | 1.0 mL/mint |

Supplementary Table 3. Description of plant species and isolates of rhizospheric bacteria together with their number having individual or multiple plant growth-promoting characteristics.

| Plant Name | No. of isolates | Isolates having individual plant growth-promoting characteristics | | | Isolates with multiple plant growth promoting characteristics |
|-------------------------------|-----------------|-------------------------------------------------------------------|-------------|----------------|---------------------------------------------------------------|
| | | Indol acetic acid production | Siderophore | EPS production | |
| <i>Artemisia princeps</i> | 22 | 2 | 4 | 6 | 3 |
| <i>Chenopodium ficifolium</i> | 6 | 3 | 4 | 2 | 0 |
| <i>Oenothera biennis</i> | 16 | 2 | 1 | 2 | 1 |
| <i>Echinochloa crus-galli</i> | 12 | 7 | 2 | 3 | 4 |