Supplement Tables

Table S1. Genomic features of *Bacillus* species AK13 compared with those of other *Bacillus* species including *B. oshimensis* DSM 18940<sup>T</sup> and *B. patagoniensis* DSM 16117<sup>T</sup>

| Features        | Values          |
|-----------------|-----------------|
|                 | AK13            | DSM18940<sup>T</sup> | DSM16117<sup>T</sup> |
| Genome size (Mb)| 4.25            | 4.06                | 4.46                |
| GC content (%)  | 40.04           | 39.8                | 39.6                |
| Contigs         | 1               | 1                   | 7                   |
| CDS             | 4,341           | 4,070               | 4,709               |
| rRNAs           | 25              | 21                  | 22                  |
| tRNAs           | 77              | 72                  | 74                  |
| C COG group     | 161             | 156                 | 194                 |
| P COG group     | 225             | 235                 | 250                 |
| E COG group     | 320             | 306                 | 326                 |
Table S2. Common proteins in *Bacillus* species AK13 compared with those in 12 other adjacent alkaliphilic *Bacillus* species except for non-alkaliphilic *B. subtilis*

| Common protein                          | Coordinates in AK13 | Strand | Gene name   |
|-----------------------------------------|---------------------|--------|-------------|
| DEAD/DEAH box helicase                  | 2,440,459-2,442,075 | -      | deaD/cshA   |
| Rne/Rng family ribonuclease             | 2,816,072-2,817,556 | -      | rng/cafA    |
| HU family DNA-binding protein           | 3,058,331-3,058,603 | +      |             |
| aldehyde dehydrogenase family protein  | 28,219-29,655       | +      | gabD        |
Supplement Figure legend

**Fig. S1.** Monitoring of growth, pH changes, and calcium utilization in B4 medium, B4L medium and modified B4, and B4L medium with pH adjustment to pH 10. (A) B4 medium. (B) B4L medium with calcium lactate. (C) Modified B4 medium with 0.2% glucose. (D) Modified B4L medium with 0.2% glucose.