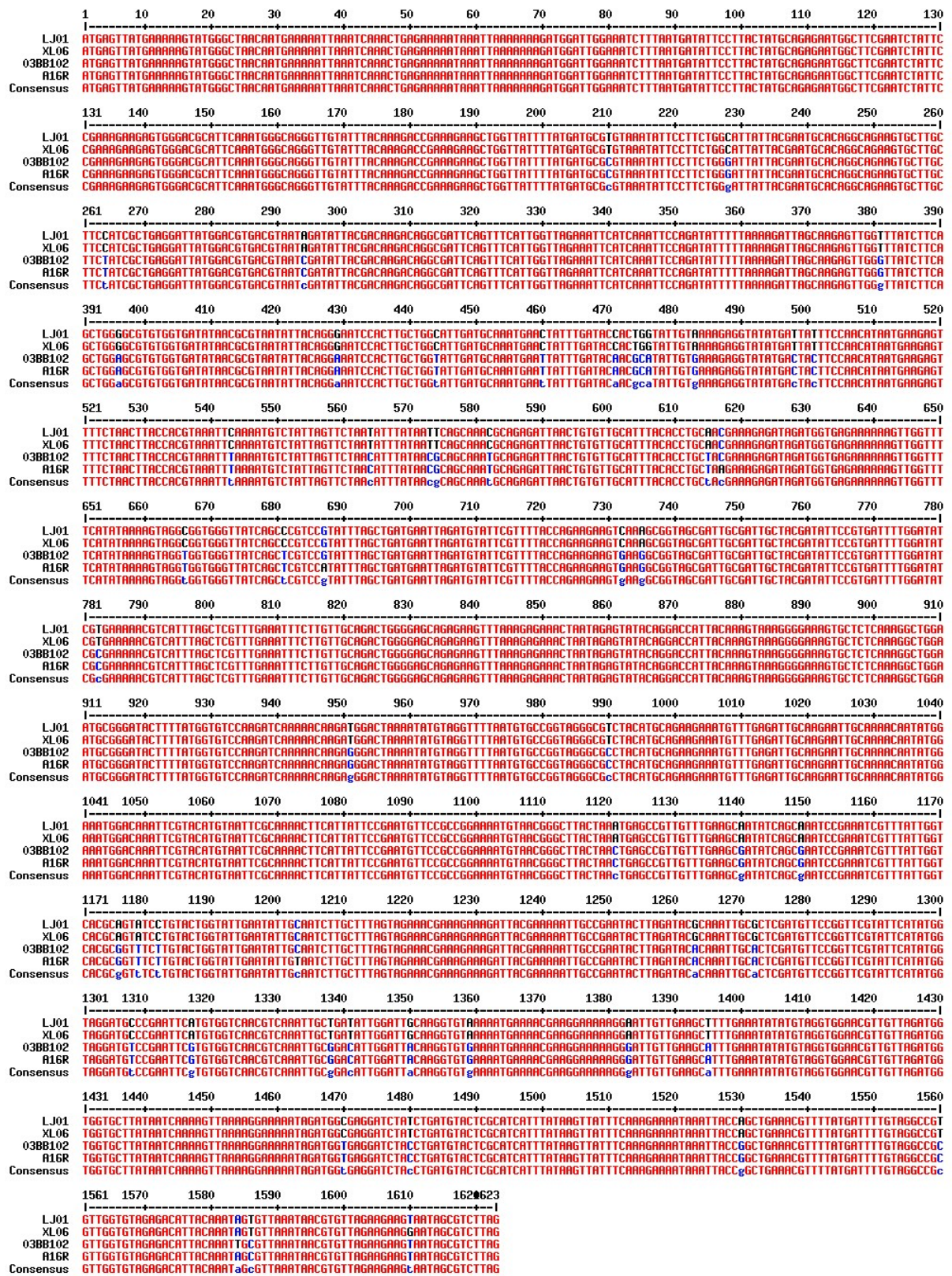


## Supplementary Materials

**Supplementary Table S1** Nature of LJ01 strain and its physiological and biochemical identification.

Characteristics	Results	Characteristics	Results
<b>Colony characteristics</b>		<b>Biochemical characteristics</b>	
Shape	irregular	Catalase test	+
Borderline	out of order	Oxidase test	-
Uplift	heave	Gelatin liquefaction	+
Surface	dry	Nitrate reduction	+
Gram-reaction	positive	Nitrite reduction	+
Shape of cells	rod	Amylolysis	+
Spore	+	Citrate utilization	-
Movability	+	Phenylalanine deaminase test	-
		Eggs creamy enzyme test	+
		Indole test	-
Physiological characteristics		Urease test	-
Culture conditions		Casein hydrolysis	-
Growth temperature		Tyrosine hydrolysis	-
30 °C	+	V-P test	+
40 °C	+	Carbon source utilization	
50 °C	-	Pectinose	-
Sodium chloride tolerance	2-10%	D-Mannitol	-
Amphimicrobial	+	Glucose	-
		D- glucose	+

According to the *Bergey's bacterial identification manual*, the morphological characteristics, physiological biochemical characteristics, and 16S rDNA sequence of LJ01 were highly same as *Bacillus cereus*.



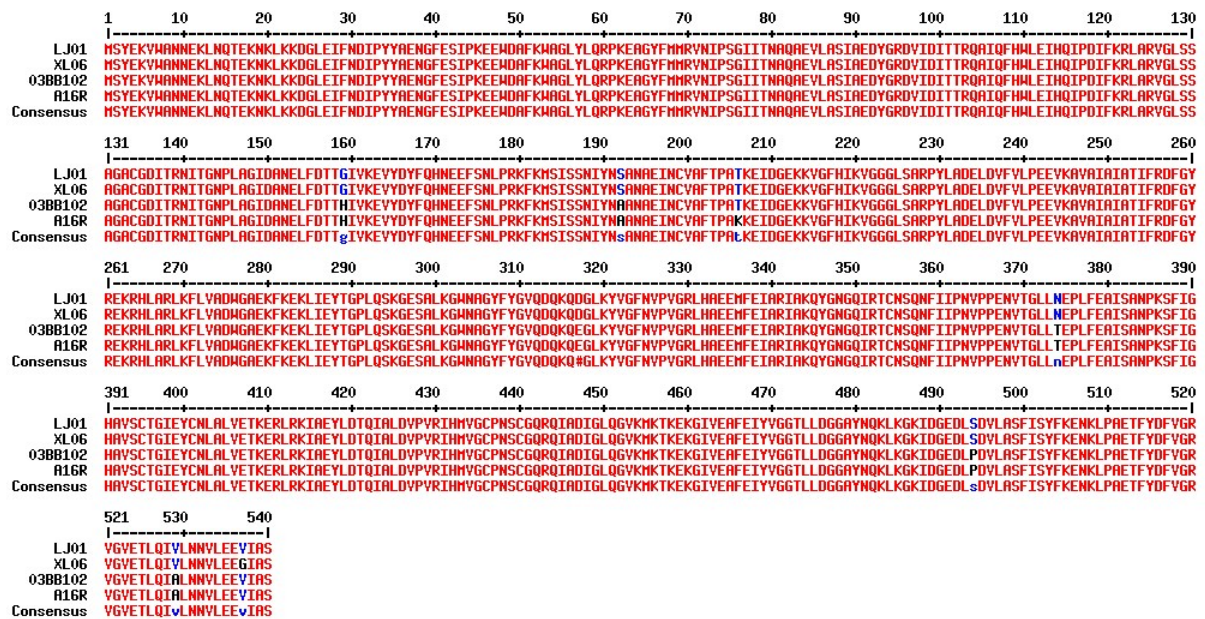
9

10 **Fig. S1 Alignment of nitrite reductase genes.** LJ01: This study (GenBank: MG839504); XL06: *Bacillus thuringiensis*  
 11 strain XL6 (GenBank: CP013000.1); 03BB102: *Bacillus cereus* strain 03BB102 (GenBank: CP009318.1); A16R: *Bacillus*  
 12 *anthracis* strain A16R (GenBank: CP001974.2).

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16 **Fig. S2 Alignment of nitrite reductase.** LJ01: This study (GenBank: MG839504); XL06: *Bacillus thuringiensis* strain  
 17 XL6 (GenBank: CP013000.1); 03BB102: *Bacillus cereus* strain 03BB102 (GenBank: CP009318.1); A16R: *Bacillus*  
 18 *anthracis* strain A16R (GenBank: CP001974.2).

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