

Supplementary Table S1:

Table S1. Comparison of properties of purified chitosanases produced by bacteria.

Organism	MW (kDa)	Optimum pH	Optimum temperature (°C)	Composition of products	References
<i>Bacillus licheniformis</i> NBL420	45	8	50	/	[1]
<i>Bacillus mojavensis</i> SY1	31	5.5	55	DP2-4	[2]
<i>Bacillus atrophaeus</i> BSS	27	5	45	DP2-4	[3]
<i>Bacillus glycinifermentans</i> BT2019	32	5	20	DP2-5	[4]
<i>Bacillus amyloliquefaciens</i>	29	6.5	55	DP2-3	[5]
<i>Bacillus amyloliquefaciens</i>	29	5.6	40	DP2-3	[6]
<i>Bacillus subtilis</i> HD145	31	5.5	50	DP2-4	[7]
<i>Bacillus sp.</i> MD-5					
<i>Bacillus sp.</i> DAU101	35	7.0	40	DP2-3	[8]
<i>Aspergillus fumigatus</i> CJ22-326	27	7.5	50	DP2-4	[9]
	23.5	5.0-6.0	55-65	DP2-6	[10]
<i>Streptomyces albolongus</i> ATCC 27414	29.6	8.0	50	DP1-2	[11]
<i>Amycolatopsis orientalis</i> IFO12806	104	5.3	60	/	[12]

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Supplementary Figure S1:

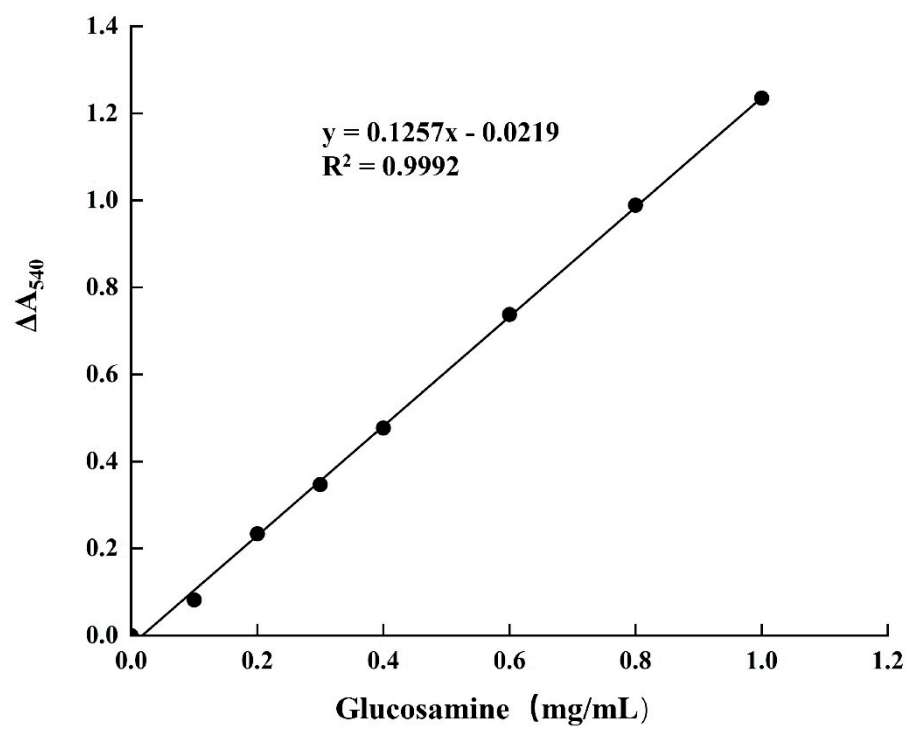


Figure S1. The standard curve of glucosamine (0.1-1.0 mg/mL) for the determination of chitosanase activity.

Supplementary Figure S2:

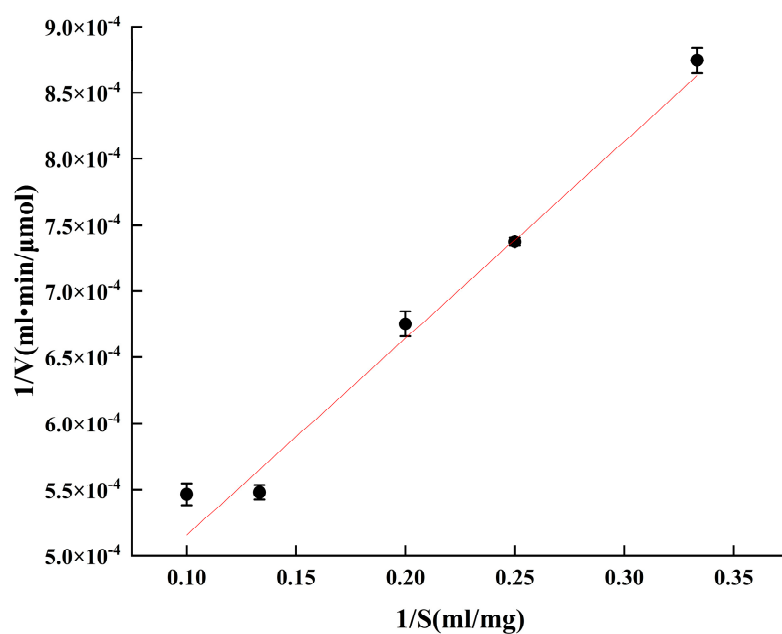


Figure S2. The curve of Lineweaver-Burk. The effects of the chitosan concentration on *BpCSN* activity. The letters “a,b,c,d” are subsets by Duncan algorithm. The same letters indicate insignificant difference ($P > 0.05$), the different letters indicate significant difference ($P < 0.05$).

Supplementary Figure S3:

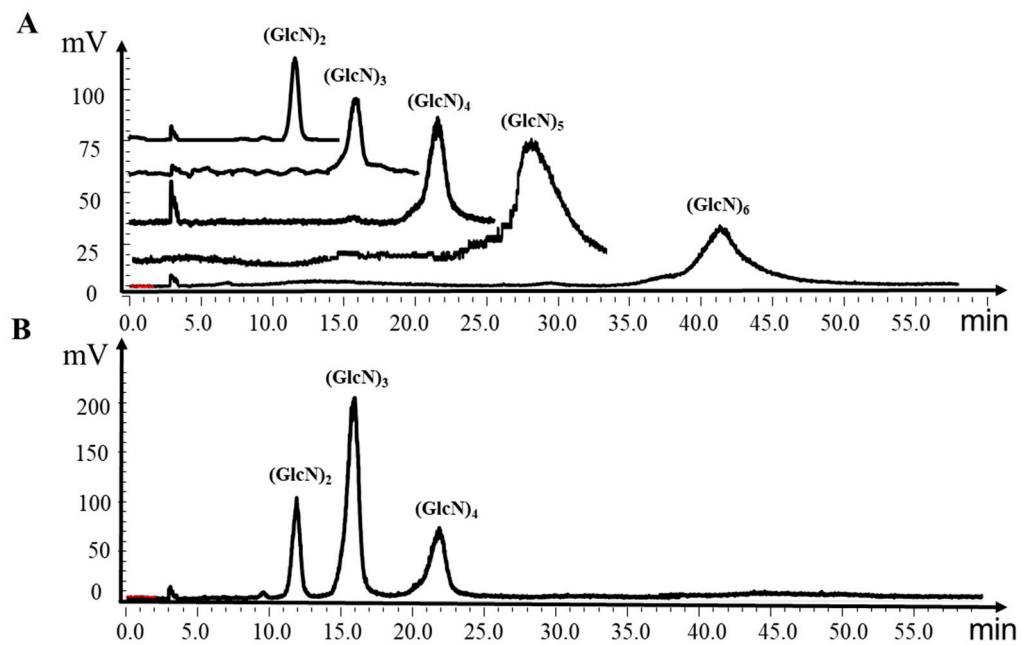


Figure S3. High-performance liquid chromatography (HPLC) analysis of hydrolytic products. A: COSs standard chromatogram diagram. B: HPLC analysis of final products hydrolyzed by *Bp*CSN.

Supplementary Figure S4:

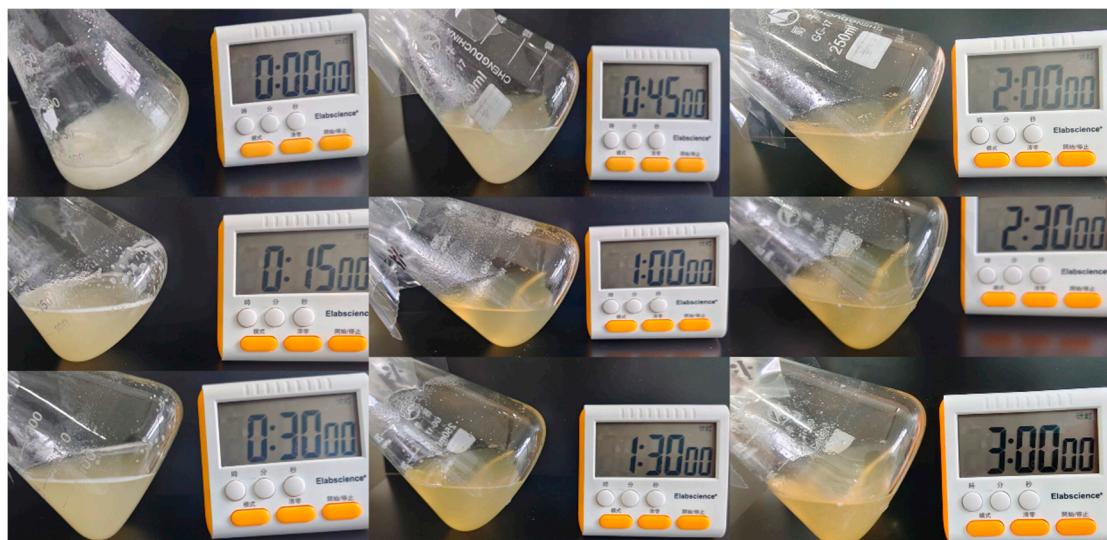


Figure S4. *BpCSN* was used for a preparation of oligosaccharides.

Supplementary informations:

The 16S rDNA sequences of *Bacillus paramycoides* BP-N07.

>OQ930621.1

CATTGGGGCAGCATAATGCAGTCGAGCGAATGGATTAAGAGCTTGCTCTTATGAAGTTA
GCGGCGGACGGGTGAGTAACACGTGGGTAACTGCCATAAGACTGGGATAACTCCG
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