Supplementary Material

TABLE S1. Synthetic oligonucleotide primers used in this study.

Primer name	Restriction endonuclease	Sequence (5' to 3')
chiA-forward	*Bam*H I	CGCGGATCCGCCGACAGCACCAATTCCTATAAAG
chiA-reverse	*Hin*d III	GCCCAAGCTTTTACTTTACGCTCCACAGGGAC
chiB-forward	*Bgl* II	AGAGATCTGCGGCAGTGCCGACGGTGC
chiB-reverse	*Eco*R I	CGGAATTCTTACTTTACGCTCCACAGGGAC
chiC-forward	*Xho* I	CCGCTCGAGGCCCCGGCTGACGGCTACAAAG
chiC-reverse	*Eco*R I	CGGAATTCTTAGTTAACCGTTACAGTAACTTC
chiD-forward	*Xho* I	CCGCTCGAGGCGGCTTCCACCCCTGCGG
chiD-reverse	*Eco*R I	CGGAATTCCTATTGCAGCGCCCACAATGC
chiE-forward	*Xho* I	CCGCTCGAGGCAGACCGCGGCGCTTGGG
chiE-reverse	*Eco*R I	CGGAATTCTTACGGCAATTTTGTCAAGAAAGG
chiF-forward	*Xho* I	CCGCTCGAGGCAACCGGCTATAAAATCGTCGGG
chiF-reverse	*Eco*R I	CGGAATTCTTACGATACGATGGCCCACAG
chiW-full length-forward	*Xho* I	CCGCTCGAGGCAAGCAAGCACATCCGATGTTGAAG
chiW-full length-reverse	*Bgl* II	GCAGATCTTTATTTCGGCGCTTTCAGTTCG
chiW-*Δ*SLH-forward	*Xho* I	CCGCTCGAGGTTATCCTGGATCCTGGATCGGGVTGCAG
chiW-1st GH18-forward	*Bgl* II	GCAGATCTATTGTTTCTTATATCCCGGCTTGG
chiW-1st GH18-reverse	*Hin*d III	CCCAAGCTTTTAGTCCTGGCTGTATTCCCAATAT
chiW-2nd GH18-forward	*Bgl* II	GAAGATCTGGTTAGTACCGGGGTGG
chiW-2nd GH18-reverse	*Hin*d III	CCCAAGCTTCTAGTCTTGGCTATAATCCCAG

The primers were designed according to the sequence of each chitinase gene and contained modifications to add appropriate restriction endonuclease recognition sites for insertion into the vector. Restriction endonuclease recognition sequences are indicated by underline.

TABLE S2. Bacterial properties of FPU-7

Cell shape	Rod-shaped flagellate bacillus-like bacteria
Size (μm)	0.5 x 2.0
Motility[a]	+
Gram staining[a]	+
Spore forming[a]	+
Catalase activity[a]	+
Oxidase activity[a]	+: glucose, maltose, sucrose, gelatin
	-: galactitol, inulin, glycerol, ribose, xylose
β-Galactosidase activity[a]	+
Arginine dihydrolase activity[a]	+
Aerobic condition[a]	+
Anaerobic condition[a]	+
Growth temperature	< 55°C
Pathogenicity	N.D.[b]

[a] + : Positive, -: Negative

[b] N.D.: Not detected.