

Supplementary Material. Table S2. Nucleotide and amino acid sequences of subtilisin Carlsberg (SubC) protein from *B. licheniformis* IIVV-SD3 and elastase (LasB) protein from *P. aeruginosa* IIVV-SD1 strains involved in the biodegradation of pine processionary raw silk. All the sequences can be found at DDBJ/ENA/GenBank (Bioproject ID PRJNA894474) that includes the *B. licheniformis* genome project (accession number JAPDGT000000000) and the *P. aeruginosa* genome project (accession number JAPDGT000000000)

Bacterial strain	Gene nucleotide sequence	Protein amino acid sequence
<i>B. licheniformis</i> IIVV-SD3 <i>subC</i> gene and Subc protein	atgatgaggaagaggtttttggcttgggatgctgacggccttaatgctcgtgttcacg atggcattcagcgattccgcttctgctgctcaaccggcgaaaaatgttgaaaaggattat attgtcggatttaagtcaaggagtgaaccgcatctgtcaaaaaggacatcatcaagag agcggcggaagtggaacaagcagtttagaatcatcaacggcgcaaaagcgaagctagac aaagaagcgcttaaggaagtcaaaaatgatccggatgtcgcttatgttggaagaggatcat gtggcccatgccttggcgcaaacggcttccttacggcattcctctcattaaagcggacaaa gtgcaggctcaaggctttaaggggagcgaattgaagcgggaatcgagtcctggatcacaggaatc caagcttctcatccggacttgaacgtagtcggcgaggacgaagctttgtggctggcggaagct tataacaccgacggcaacggacacggcacacatgttgccggtacagtagctgcgcttgac aatacaacgggtgtattagggcttgcgccaagcgatccttgtacgggttaaagtactg aattcaagcgaagcggtatcacacggcgttgaagcgggaatcgagtcggcgacaaca aacggcatggatgttatcaatatgagccttgggggagcatcaggctcgacagcgatgaaa caggcagtcgacaatgcatatgcaagaggggttgtcgctttagctgcagcagggaacagc ggatcttcaggaaacacgaatacaattgggtatcctgcgaaatacagattctgtcatcgct gttggtgcggtagactctaacagcaacagagcttcattttccagtggtggagcagagctt gaagtcattggctcctggcgaggcgtatacagcacttaccacgaacacttatgcaaca ttgaacggaacgtcaatggcttctcctcatgtagcgggagcagcagctttgatcttgta aaacatccgaacctttcagcttcacaagtcggcaaccgctctctccagcagcgagcttat ttgggaagctccttctactatgggaaaggctctgatcaatgtcgaagctgccgctcaataa	MMRKKSFWLGLMLTALMLVFTMAFSDSASAAQPAKNVEKDYIVGFKSGVKT ASVKKDI IKESGGKVDKQFRI INAAKAKLDKEALKEVKNDPDVAYVEEDH VAHALAQTPYGIPLIKADKVQAQGFKGANVKVAVLDTGIQASHPDLNVV GGASFVAGEAYNTDGNHGHGTHVAGTVAALDNTTGVLGVPSPVSLYAVKVL NSSGSGSYSGIVSGIEWATTNGMDVINMSLGASGSTAMKQAVDNAYARG VVVVAAGNSGSSGNTNTIGYPAKYDSVIAVGAVDSSNSNRSFSSVGAEL EVMAPGAGVYSTYPTNTYATLNGTSMASPHVAGAAALILSKHPNLSASQV RNRLSSTATYLGSSFYYGKGLINVEAAAQ
<i>P. aeruginosa</i> IIVV-SD1 <i>lasB</i> gene and LasB protein	atgaagaagggttttctacgcttgacgtgttggcttgcgatcatgggtgttttcgccggcc gcttttggccggcagcctgatcgacgtgtccaaactcccagcaaggctgccaggggcgcg cccgcccggtcaccttgcaagccggtcggtcggtcggtgcgacgaactgaaagcg atccgcagcagcaccctgcccaacggcaagcaggtcaccgctacgagcaattccacaac ggcgtagcgggtggtcgggcaagccatcacggaagtcaagggtcccggaagagcgtggcg gcgtagcgcagcgccatttcgtcgccaacatcgctgccgacctgccgggcagcaccacc gcggcggtatccgcccagcaggtgctggcccagccaaagacctgaaggcccaggggccgc aagaccgagaatgacaaagtggaactggtgatccgctggcgagaaacaacatcgcccaa ctggtctacaacgtctcctacctgattcccgcgagggaactgtcgcgccgcatcttctgc atcgacgccaagaccggcggaagtgtcgatcagtgagggaaggcctggcccacgcccaggcg ggcgcccccgggcgaaccagaagatcggaagtaacacctacggtagcgactacggtccg ctgatcgtcaacgaccgctgcgagatggacgacggcaacgtcatcacgctcgacatgaac ggcagcaccgacgacagcaagaccagcgcttccgcttcgctgcccgaccacaacacctac aagcaggtcaacggcgccctattccgctgtaacgacgcgcatttcttcggcgcggtgtg ttcaaaactgtaccgggactggttcggcaccagcccgctgaccacaagctgtacatgaag gtgactactcgggcgagcgtggagaacgcctactgggacggcagcgcatgctcttcggc gacggcgccaccatgttctatccgctggtgtcgctggaagctggcgccacagaggtcagc cacggctttaccgagcagaactccgggtgatctaccgcggaatcaggcggaatgaac gaagcgttctccgacatggccggcgaggcagccaggttctacatgcgcggcaagaacgac ttcctgatcggtacgacatcaagaaggcgagcggtgcgctgcgctacatggaccagccc agccgagcggggcgtccatcgacaacgcgtcgagtagtacaacggcatcgacgtgcac cactccagcgcggtgtacaacgcgtgcgttctacctgttgcccaattcgccgggctgggat acccgcaaggccttcgaggtgttcgtcgacgccaaccgctactactggaccgccaccagc aactacaacagcgcgctgcggggtgattcgctcggcgcagaaaccgcaactactcgcg gctgacgtcaccggcggttcagcaccgctcgcggtgacctgcccgagcgcggtgtgtaa	MKKVSTLDLLFVAIMGVSPAFAADLIDVSKLPSKAAQAGPVTLQAAV GAGGADELKAIRSTTLPNGKQVTRYEQFHNGVRVVGEAITEVKGPKSV AQRSGHFVANIAADLPGSTTAAVSAEQVLAQAKSLKAQGRKTENDKVELV IRLGENNIAQLVYNVSYLIPGGLSRPHFVIDAKTGEVLDQWEGLAHA EAGPGGNQKIGKITYGSDYGPLIVNDRCEMDGNVITVDMNGSTDDSKTTP FRFACPTNTYKQVNGAYSPLNDAHFFGGVVFKLYRDWFGTSPLTHKLYMK VHYGRSVENAYWDGTAMLFGDGATMFYPLVSLDVAHEVSHGFTEQNSGL IYRGQSGGMNEAFSDMAGEAAEFYMRGKNDFLIGYDIKKGSGALRYMDQP SRDGRSIDNASQYYNGIDVHHSSGVYNRAFYLLANS PGWDTRKAFEFVVD ANRYYTATSNTYNSGACGVIRSAQNRNYSAADVTRAFSTVGVTCP SAL