TABLE S1. 16S rRNA gene sequences of 5 strains **(A21, D08, C02, A09, A10)** belonging to the species *Lactobacillus plantarum, Lactobacillus sunkij, Lactobacillus parabuchneri, Pediococcus pentosaceus,* and *Lactobacillus brevis*, respectively.

Lactobacillus plantarum A21

CTTGGCTAAGACATGCAAGTCGTACGAACTCTGGTATTAAGTGGTGCTTGCCTCAGGATTTACATTTGAGTGATT
GGCGGACTGGTGAGTACCAGGTGGGAAACCTGCCCAGAAGCGGGGCAGAACACCTGGAAACAGATGCTAATA
CCGCATAACAACTTGGACCGCATGGACCGAGTTTGAAAGATGTTTTCGGCTATCACTTTTGGATGGTCCCGCGGA
AATTAGCTAGATTCTGGGGTAACGGCTCACCATGGCAATGATACGTGGCCGACCTGAGAGGGCCATCGGCCAA
ATTGGGACTGAGACACGGCCCAAACTCCCTACGGGAGGCAGCAGTCGGCAATCTTCCACAATGGACGAAAGTC
TGATGGAGCAACGCCGCGAAAGTGAAGAAGCGGTTTCGGCTCGTAAAACTCTGTTGTTCAAGAAGAACATATCT
GAGAGTAACTGTCCACGTCTTGACGGTTTTTAACCAGAAAGCCACGGAAAACTACGTGCCAGCAGCCGCGGTA
ATACGTAGGTGACGAGCGTTGTCCGGATTTATAGGGCGTCAAGCGAGCGCAGGCTTGTTTTTGAGTCTGATGTGT
CAGTCTTCGGCTCACCCGAAGAAGTGCATCGCAAACTGGGAAACTTGAGTGCATAAGAGGACAGTGGAACTCC
ATGAACCGCGCTGCAATGCGTAGATATCTGTAAAGAACACCAGTGACGCAGGTGGCTGTCTGGGCTGTATCTGC
CGCTGATGCTCGCTAGTATGGATAGCATACAGAAATAGATACCCTGGCCACCCATGCTGTACACGATGACTGCG
AAGTGTTAGGAGGGTTTCGGCGCTTCAGTGCTGCTGCTCACGCATTAAGCATTCCAGCGTGGGAGTACGTCTGCG
AGGGTGGCACTCGAAAGTAATCGACAGGAGTTCCACAGCAGCGTGGCAGCCTGTTGTTTCAAATCGAATGCTAG
CGCGAAGCATCCTACGAGGTTTGACAGACTCTGCAGATCCTAGAAGATGCGAGGTCTCTTCGGGGACATGGATA
CAGTGGTGACATGGTTGTCGTCAGCTCGTGCTCGTGAGATGTACGGTTAGTCCCGCACGAGCGCAACCCTATATT
ATCAGTTGCCAGCAT

Lactobacillus sunkii D08

GGGGGCGGCCCCTTTATACATGCAAGTCGAACGCGCCTTGGTTATTGATGTCGGGTGCTTGAGATTAATGATTTA
ACATTGAGAGGAGTGGCGACTGGTGAGGAACACGCGGGTCACCTGCCCTTGAAGAAGGGTATAACCCTTGGAA
ACTGGTGCTAATACCGTATAACAACCAAAACCACATGGGTTTGGTTTAAAAGATGGTTTCGGCTGTCACTTTCGG
ATGGACCCGCGGTGTATTAGCTTGTTGGGAAGCAAACGGCCTACCAAGGCTATGATACGTGGCCGACCTGAGA
GGGAAATCGGCCACATTGGGACTGACACACGCCCACAACTCCTACGGGTGGCAGCTGTTCCAAATCGTCCACA
ATGGACAAAAGTCTGATGGAGCAACGTCGCGTGAGTTATGAAGGGGTTCGACTCTGAAAACTCTGTAGAAGAA
GAAGAACAGATGTTATAGTAACTGTTGACATCTTGACGCAGTCAAACCCGAAAGCCTCGGCTAACTACGTGCCA
GCAGCAGCTGGAATGCGTACGTCGCAAGCGTTGAATGGACTTAAAGGGCGCAAAGCGAGCGCAGGAGGTCTCA
TATGTCTGATGTGAAAACACTCCGGCTTAACCGGAGAAGTGCATCGGAAACCAGGAGACTTGAGTGCAGAAGA
GGACAGTGGAACTCCATGTGTAGCGGTGAAATGCGTAGATATATGGAAGAACACCAGTGGCGAAGGCGGCTGT
CTGGTCTGTAACTGACGCTGAGGCTCGAAAGCATGGGTAGCGAACAGGATTAGATACCCTGGTAGTCCATGCCG
TAAACGATGAGTGCTAAGTGTTGGAGGGTTTCCGCCCTTCAGTGCTGCAGCTAACGCATTAAGCACTCCGCCTG
GGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTA
ATTCGATGCTACGCGAAGAACCTTACCAGGTCTTGACATCTTCTGCCAACCTAAGAGATTAGGCGTTCCCTTCGG
GGACAGAATGACAGGTGGTGCATGGTTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGC
GCAACCCTTATTGTTAGTTGCCAGCATTCAGTTGGGCACTCTAGCAAGACTGCCGGTGACAAACCGGAGGAAGG
TGGGGATGACGTCAAATCATCATGCCCCTTATGACCTGGGCTACACACGTGCTACAATGGACGGTACAACGAGT
CGCGAAACCGCGAGGTCAAGCTAATCTCTTAAAGCCGTTCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACAT
GAAGTTGGAATCGCTAGTAATCGTGGATCAGCATGCCACGGTGAATACGTTCCCGGGCCTTGTACACACCGCCC
GTCACACCATGAGAGTTTGTAACACCCAAAGCCGGTGAGGTAACCTTCGGGGACCAGCCGTCTAAGGTGGGAC
AGATGATTAGGGTGAAGTCGTAACAAGGTAGCCGTAGGAGAACCTGC

Lactobacillus parabuchneri C02

GGGGGCGGCCCCTTTATACATGCAAGTCGAACGCGCCTTGGTTATTGATGTCGGGTGCTTGAGATTAATGATTTA
ACATTGAGAGGAGTGGCGACTGGTGAGGAACACGCGGGTCACCTGCCCTTGAAGAAGGGTATAACCCTTGGAA
ACTGGTGCTAATACCGTATAACAACCAAAACCACATGGGTTTGGTTTAAAAGATGGTTTCGGCTGTCACTTTCGG
ATGGACCCGCGGTGTATTAGCTTGTTGGGAAGCAAACGGCCTACCAAGGCTATGATACGTGGCCGACCTGAGA

GGGAAATCGGCCACATTGGGACTGACACACGCCCACAACTCCTACGGGTGGCAGCTGTAGGGAATCTTCCACA
ATGGACAAAAGTCTGATGGAGCAACGTCGCGTGAGTTATGAAGGGGTTCGACTCTGAAAACTCGTTGTTGGAGA
AGAACAGGTGTCAGAGTAACTGTTGACATCTTGACGGTATCCAACCAGAAAGCCTCGGCTAACTACGTGCCAGC
AGCAGCTGGAATGCGTACGTCGCAAGCGTTGAATTTCTTAGGTCTGATGTGAAAGCCTTCGGCTTAACCGGAGA
AGTGCATCGGAAACCAGGAGACTTGAGTGCAGAAGAGGACAGTGGAACTCCATGTGTAGCGGTGAAATGCGTA
GATATATGGAAGAACACCAGTGGCGAAGGCGGCTGTCTGGTCTGTAACTGACGCTGAGGCTCGAAAGCATGGG
TAGCGAACAGGATTAGATACCCTGGTAGTCCATGCCGTAAACGATGAGTGCTAAGTGTTGGAGGGTTTCCGCCC
TTCAGTGCTGCAGCTAACGCATTAAGCACTCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATT
GACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCTACGCGAAGAACCTTACCAGGTCTTGAC
ATCTTCTGCCAACCTAAGAGATTAGGCGTTCCCTTCGGGGACAGAATGACAGGTGGTGCATGGTTGTCGTCAGCT
CGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTATTGTTAGTTGCCAGCATTCAGTTGGGCA
CTCTAGCAAGACTGCCGGTGACAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCTTATGACCT
GGGCTACACACGTGCTACAATGGACGGTACAACGAGTCGCGAAACCGCGAGGTCAAGCTAATCTCTTAAAGCC
GTTCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTTGGAATCGCTAGTAATCGTGGATCAGCATGCC
ACGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGAGAGTTTGCGCTCACGTAGCGATCAG
TCACTGAGTACATACTCTTTACAAGCGTCATAACACCCAAAGCCGGTGAGGTAACCTTCGGGGACCAGCCGTCT
AAGGT

Pediococcus pentosaceus A09

GCGTGCTTAAACATGCACACGCTCCGATACGTACATCGTTCCCGCCTTATGACGGATGACGCACTTGTACTGACT
GACATTTTAACGCGAAGTTAGTAGCGCACGGGTGAGTAACACGTGGGTAACCTGCCCCGAAGTACGGGATAAC
ACCTGGAAACAGATGCTAATACCGTATAACAGAGAAAACCGCATGGGTCTCTTTTAAAAGATGGCTCTGCTATC
ACTTCTGGATGAACCCGCGGCGTATTAGCTAGTTGGTGAGGTAAAGGCTCACCAAGGCTGTGATACGTAGCCGA
CCTGAGAGGGTAATCGGCCACATTGTTACTGACACACGCCCCATACTCCTACTTGAGGCCGCAGTAGGCAATCT
TCCACCATGAATGAAAGTCTGATGCAGCAACGACGCGTGAGTCAAGAAGGGTTTCGGCTCGTAAAGCTCTGTTG
TTAAAGAAGAACGTGAACAAGAGTAACTGTTTACCTCTTGCCCCTATTTAACCAGAAAGCCTCGGCGAACTACG
TGCCAGCAGCCGCGGTGATACGTACGTTGCAAGCGTTATCCGGATTTATTGGGCGTAAAGCGAGCGCAGGCGGT
CTTTTAAGTCTTATGTGATATCCTTCGGCTCAACCGAAGAAGTGCATTGAAAACTGAGAGACTTGAGTGCAGAA
GAGGACAGTGGAACTCCATGTATAGCGGTGAAATGCGTATATATATGGGAGAACACCAGTGGCGAAAGCGGCT
GTCTGGCCTGCAACTGACGCTGAGGCTCGAAAGCATGAATAGCAAACAGGATTAGATACCCTGGTAGTCCACG
CCGTATACGATGTTTACCAGGTGTTGGGGGGTTTCCGCCCCCAGTGCTGCAGCTAACTCTCCAGGTACCCAGCCT
GTTTTGTAGGATCGCCAGGATGTTACTCAAAAGAATTAACAGAAGCCCGCCCACCCGTTGAACCACGGGTTTAA
TTCGAAGCTACGCGAAGAACCTTACCAGGTCTTGACATCTTCTGACAGTCTAAGAGATTAGAGGTTCCCTTCGGG
GACAGAATGACAGGTGGTGCTAGACTAGCGTCCCTTTAAACCGGGAATTTTTCGGTCAGTACCCCTACTTACCC
AACCGTTTTTACCCTTGCCAACTTTAACTGGGGAACAAATTCCAACCCCCGGCCCCAACGGGGGGAAGGGGGG
GATCCATTCAACCTTTGGGCCCTTACCCCCCGGGCCCCCCCGTCCAATCGGGGGGGGACCTTTCCCCCACCCCCC
GATTAACCCAGGTCCTTACCAATTTAAGGGGGGCATTTTTTAATAAACCCCAAAATTCGGTTTTCTAGAAAAACG
AACCCTTCCCCGGGTAACCCCCCCGCGGTGGAACCCCCGTAAACATAAACTTAACTTGAACTTGAACCTTAAGG
CTAAGGTGGGTTTGGGCCCGGGGCCACCCAA

Lactobacillus brevis A10

TTGCGGGACTTAACCCAACATCTCACGAAACGAGTTGAAGACAACCTTGCCCCACCTGGATCCATGTCCCCGAA
GGGAACGTCTAATCTCACAGATTTGCATAGTAGGTCAAGATTTTAAGTCTGATGTGAAAGCCTTCGGCTTAACCG
GAGAAGTGCATCGGAAACTGGGAGACTTGAGTGCAGAAACTCAAAGGAATTGACGGGGGCCCGCACAAGCGG
TGGAGCATGTGGTTTAATTCGAAGCTACGCGAGAACCTTACCAGGTCTTGACATACTATGCAAATCTAAGAGAT
TAGACGTTCCCTTCGGGGACATGGATACAGGTGGTGCATGGTTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTA
AGTCCCGCAACGAGCGCAACCCGAAGAGGACAGTGGAACTCCATGTGTAGCGGTGGAATGCGTAGATATATGG
AAGAACACCAGTGGCGAAGGCGGCTGTCTAGTCTGTAACTGACGCTGAGGCTCGAAAGCATGGGTAGCGAACA
GGATTAGATACCCTGGTAGTCCATGCCGTAAACGATGAGTGCTAAGTGTTGGAGGGTTTCCGCCCTTCAGTGCTG
CAGCTAACGCATTAAGCACTCCGCCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGGAATTGACGGGGGCC

CGCAAAGCGGTGGAGCATGTGGTTTAATTCGAAGCTACGCGAAGAACCTTACCAGGTCTTGACATCTTCTGCCA
ATCTCGTTGCGGGACTTAACCCAACATCTCAAGACACGTGCTGAAGACTACCTTGCACCACCTGTTCCATGTCCC
CCAAAGAGACGTCTAATCTCTTATATTTGCATCGTATGTCATGACCTGGTAGGGTTCTTCGCGTAGCTTCATATTA
AACCACATGCTCCACCGCTTGTTCTTCCCCCGACGATTCCTTTCATTCATCTGTTACGGCATGAACGACCAGTCTG
TGTTTGCACCCATACTTTCGAGCCTAGTCTGCGTTACAGACCAGACAGATACCGACGTCGCTGCAGATCTAGATA
TCCACGTTTTCTGGTGAATGCGTCAAGCGGGACAGTTCTCTCAAATCGTTCTCTTTAACATCGGTTTTTCCAGCAA
AAGCCTTCTCTTTTATCGGTGTCATCATAAGATGTCATCATGGGGAAGATCCCTACGACCCCACCAGGGGGTTGG
CCTGATCAATCCACTTGGGCATGGCCTCCAGGCGCAAAGAATTGCATGG