

<110> UNIVERSITY-INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY

<120> Novel lactic acid bacteria and use thereof

<130> P19014-NVP

<150> KR 10-2018-0132834

<151> 2018-11-01

<160> 8

<170> KoPatentIn 3.0

<210> 1

<211> 1436

<212> DNA

<213> Artificial Sequence

<220>

<223> NK3 16s rDNA

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ggctatcact tttggatggg cccgcggcgt attagctaga tgggtggggta atggctcacc 240

atggcaatga tacgtagccg acctgagagg gtaatcggcc acattggggac tgagacacgg 300

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catatctgag agtaactgtt caggatttga cggattttaa ccagaaagcc acggctaact 480

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gacgctgagg ctcgaaagta tgggtagcaa acaggattag ataccctggg agtccatacc 780

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|                                                                    |      |
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| ccgcacaagc ggtggagcat gtggtttaat tcgaagctac gcgaagaacc ttaccaggtc  | 960  |
| ttgacatact atgcaaactt aagagattag acgttccctt cggggacatg gatacagggtg | 1020 |
| gtgcatgggt gtcgtcagct cgtgtcgtga gatgttgggt taagtcccg c aacgagcgca | 1080 |
| acccttatta tcagttgcca gcattaagtt gggcactctg gtgagactgc cggtgacaaa  | 1140 |
| ccggaggaag gtggggatga cgtcaaatca tcatgcccct tatgacctgg gctacacacg  | 1200 |
| tgctacaatg gatggtacaa cgagttgcga actcgcgaga gtaagctaata ctcttaaagc | 1260 |
| cattctcagt tcggattgta ggctgcaact cgcctacatg aagtcggaat cgctagtaat  | 1320 |
| cgcggtatcag catgccgcgg tgaatacgtt cccgggcctt gtacacaccg cccgtcacac | 1380 |
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| cttctgggaa agctttcgcg gtatgggatg gggtcgcgtc ctatcagctt gacggcgggg   | 180 |
| taacggccca ccgtggcttc gacgggtagc cggcctgaga gggcgaccgg ccacattggg   | 240 |
| actgagatac ggcccagact cctacgggag gcagcagtgg ggaatattgc acaatgggcg   | 300 |
| caagcctgat gcagcgacgc cgcgtgaggg atggaggcct tcgggttgta aacctctttt   | 360 |
| atcggggagc aagcgagagt gagtttacc gttgaataag caccggctaa ctacgtgcca    | 420 |
| gcagccgcgg taatacgtag ggtgcaagcg ttatcccga attattgggc gtaaagggct    | 480 |
| cgtaggcgggt tcgtcgcgtc cgggtgtgaaa gtccatcgct taacggtgga tccgcgccgg | 540 |

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| gtagatatcg ggaagaacac caatggcgaa ggcaggcttc tgggccgta ctgacgtga     | 660  |
| ggagcgaaaag cgtgggggagc gaacaggatt agataccctg gtagtccacg ccgtaaacgg | 720  |
| tggatgctgg atgtggggcc cgttccacgg gttccgtgtc ggagctaacg cgtaagcat    | 780  |
| cccgcttggg ggagtacggc cgcaaggcta aaactcaaag aaattgacgg gggcccgcac   | 840  |
| aagcggcgga gcatgcggat taattcgatg caacgcgaag aaccttacct gggcttgaca   | 900  |
| tgttcccgac ggtcgtagag atacggcttc ctttcggggc gggttcacag gtggtgcatg   | 960  |
| gtcgtcgtca gctcgtgtcg tgagatgttg ggttaagtcc cgcaacgagc gcaaccctcg   | 1020 |
| ccccgtgttg ccagcggatt atgccgggaa ctcacggggg accgccgggg ttaactcgga   | 1080 |
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| caatggccgg tacaacggga tgcgacgcgg cgacgcggag cggatccctg aaaaccggtc   | 1200 |
| tcagttcgga tcgcagtctg caactcgact gcgtgaaggc ggagtcgcta gtaatcgca    | 1260 |
| atcagcaacg tcgcggtgaa tgcgttcccg ggccttgtag acaccgcccg tcaagtcatg   | 1320 |
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