

P17045-NVP_Sequence list (2).txt

<110> UNIVERSITY-INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY
NAVIPHARM CO, LTD

<120> Novel lactic acid bacteria and use thereof

<130> P17045-NVP

<150> KR 10-2017-0013632

<151> 2017-01-31

<160> 30

<170> KoPatentIn 3.0

<210> 1

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> 16S rDNA of Bifidobacterium longum IM55

<400> 1

gacttgacgg ggcggtgtgt acaaggcccg ggaaacgcat tcaccgacgac gttgctgatt 60

cgcgattact agcgactccg ccttcacgca gtcgagttgc agactgcgat ccgaactgag 120

accggttttc agggatccgc tccgcgtcgc cgcgctcgcac cccgttgtac cggccattgt 180

agcatgcgtg aagccctgga cgtaaggggc atgatgatct gacgtcatcc ccaccttcct 240

ccgagttaac cccggcggtc ccccgtagt tcccggcata atccgctggc aacacggggc 300

gagggttgcg ctctgttcgg gacttaacct aacatctcac gacacgagct gacgacgacc 360

atgcaccacc tgtgaacccg ccccgaggga aagccgtatc tctacgaccg tcgggaacat 420

gtcaagccca ggtaagggtc ttcgcgttgc atcgaattaa tccgcatgct ccgccgcttg 480

tgcgggcccc cgtcaatttc tttgagtttt agccttgagg ccgtactccc caggcgggat 540

gcttaacgag ttagctccga cacggaaccc gtggaacggg ccccatatcc agcatccacc 600

gtttacggcg tggactacca gggatatctaa tcctgttcgc tccccacgct ttcgctcctc 660

agcgtcagta acggcccaga gacctgcctt cgccattggt gttcttcccg atatctacac 720

attccaccgt tacaccggga attccagtct cccctaccgc actcaagccc gcccgtagcc 780

ggcgcggtatc caccgttaag cgatggactt tcacaccgga cgcgacgaac cgcctacgag 840

P17045-NVP_Sequence list (2).txt

ccctttacgc ccaataattc cggataacgc ttgcacccta cgtattaccg cggctgctgg	900
cacgtagtta gccggtgctt attcaacggg taaactcact ctcgcttgct ccccgataaa	960
agaggtttac aacccgaagg cctccatccc tcacgcggcg tcgctgcatc aggcttgcg	1020
ccattgtgca atattcccca ctgctgcctc ccgtaggagt ctgggccgta tctcagtccc	1080
aatgtggccg gtcgccctct caggccggct acccgtcgaa gccacggtgg gccgttacc	1140
cgccgtcaag ctgataggac gcgaccccat cccataccgc gaaagctttc ccagaagacc	1200
atgcgatcaa ctggagcatc cggcattacc acccgtttcc aggagctatt ccggtgtatg	1260
gggcaggtcg gtcacgcatt actcaccgt tcgccactct caccaccaag caaagcccga	1320
tggatcccgt tcgacttgca tgtgttaagc acgccgccag cgttcacatc gagccat	1377

<210> 2
 <211> 1421
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 16S rDNA of Lactobacillus plantarum IM76

<400> 2	
ctggtattga ttggtgcttg catcatgatt tacatttgag tgagtggcga actggtgagt	60
aacacgtggg aaacctgccc agaagcgggg gataacacct ggaaacagat gctaataccg	120
cataacaact tggaccgcat ggtccgagct tgaaagatgg cttcggctat cacttttggg	180
tggtcccgcg gcgtattagc tagatggtgg ggtaacggct caccatggca atgatacgta	240
gccgacctga gagggtaatc ggccacattg ggactgagac acggcccaaa ctcttacggg	300
aggcagcagt aggggaatctt ccacaatgga cgaaagtctg atggagcaac gccgcgtgag	360
tgaagaaggg tttcggctcg taaaactctg ttgttaaaga agaacatata tgagagtaac	420
tgttcaggta ttgacggtat ttaaccagaa agccacggct aactacgtgc cagcagccgc	480
ggtaatacgt aggtggcaag cgttgtccgg gatattattgg gcgtaaagcg agcgcaggcg	540
gttttttaag tctgatgtga aagccttcgg ctcaaccgaa gaagtgcata ggaaactggg	600
aaacttgagt gcagaagagg acagtggaaac tccatgtgta gcggtgaaat gcgtagatat	660
atggaagaac accagtggcg aaggcggctg tctggctctgt aactgacgct gaggctcgaa	720

P17045-NVP_Sequence list (2).txt

agtatgggta gcaaacagga ttagataccc tggtagtcca taccgtaaac gatgaatgct	780
aagtgttgga gggtttccgc ctttcagtgc tgcagctaac gcattaagca ttccgcctgg	840
ggagtacggc cgcaaggctg aaactcaaag gaattgacgg gggcccgcac aagcgggtgga	900
gcatgtgggtt taattcgaag ctacgcgaag aaccttacca ggtcttgaca tactatgcaa	960
atctaagaga ttagacgttc ctttcgggga catggataca ggtggtgcat ggttgtcgtc	1020
agctcgtgtc gtgagatgtt gggttaagtc ccgcaacgag cgcaaccctt attatcagtt	1080
gccagcatta agttgggcac tctggtgaga ctgccggtga caaacgggag gaaggtgggg	1140
atgacgtcaa atcatcatgc cccttatgac ctgggctaca cacgtgctac aatggatggt	1200
acaacgagtt gcgaactcgc gagagtaagc taatctctta aagccattct cagttcggat	1260
tgtaggctgc aactcgccta catgaagtcg gaatcgctag taatcgcgga tcagcatgcc	1320
gcggtgaata cgttcccggg cttgtacac accgcccgtc acaccatgag agtttgtaac	1380
acccaaagtc ggtggggtaa ctttttagga accagccgcc t	1421

<210> 3
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> T-bet F primer

<400> 3	
cctcttctat ccaaccagta tc	22

<210> 4
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> T-bet R primer

<400> 4	
ctccgcttca taactgtgt	19

P17045-NVP_Sequence list (2).txt

<210> 5
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> FN-gamma F primer

<400> 5
 tcaagtggca tagatgtgga agaa 24

<210> 6
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> FN-gamma R primer

<400> 6
 tggctctgca ggattttcat g 21

<210> 7
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> GATA3 F primer

<400> 7
 gaaggcatcc agacccgaaa c 21

<210> 8
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> GATA3 R primer

<400> 8
 acccatggcg gtgacctatgc 20

P17045-NVP_Sequence list (2).txt

<210>	9	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-5 F primer	
<400>	9	
	aaagagaagt gtggcgagga gagac	25
<210>	10	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-5 R primer	
<400>	10	
	ccttccattg cccactctgt actcatc	27
<210>	11	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	ROR gamma t F primer	
<400>	11	
	acagccactg cattcccagt tt	22
<210>	12	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	ROR gamma t R primer	
<400>	12	
	tctcggaagg acttgcagac at	22

P17045-NVP_Sequence list (2).txt

<210>	13	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-17 F primer	
<400>	13	
	tttaactccc ttggcgcaaa a	21
<210>	14	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-17 R primer	
<400>	14	
	ctttccctcc gcattgacac	20
<210>	15	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	FOXp3 F primer	
<400>	15	
	cccatcccca ggagtctt	18
<210>	16	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	FOXp3 R primer	
<400>	16	
	accatgacta ggggcactgt a	21

P17045-NVP_Sequence list (2).txt

<210>	17	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-10 F primer	
<400>	17	
	atgctgcctg ctcttactga ctg	23
<210>	18	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	IL-10 R primer	
<400>	18	
	cccaagtaac ccttaaagtc ctgc	24
<210>	19	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	GAPDH F primer	
<400>	19	
	tgcaagtggca aagtggagat	20
<210>	20	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	GAPDH R primer	
<400>	20	
	tttgccgtga gtggagtcac	20

P17045-NVP_Sequence list (2).txt

<210>	21	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Firmicutes F primer	
<400>	21	
	ggagyatgtg gtttaattcg aagca	25
<210>	22	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Firmicutes R primer	
<400>	22	
	agctgacgac aacctatgcac	20
<210>	23	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Bacteroidetes F primer	
<400>	23	
	aacgcgaaaa accttaccta cc	22
<210>	24	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Bacteroidetes R primer	
<400>	24	
	tgccctttcg tagcaactag tg	22

P17045-NVP_Sequence list (2).txt

<210>	25	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Actinobacteria F primer	
<400>	25	
	tgtagcgggtg gaatgcgc	18
<210>	26	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Actinobacteria R primer	
<400>	26	
	aattaagcca catgctccgc t	21
<210>	27	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	delta/gamma-proteobacteria F primer	
<400>	27	
	gctaacgcat taagtryccc g	21
<210>	28	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	delta/gamma-proteobacteria R primer	
<400>	28	
	gccatgcr gc acctgtct	18

P17045-NVP_Sequence list (2).txt

<210> 29
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> TM7 F primer

<400> 29
 gcaactcttt acgcccagt 19

<210> 30
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> TM7 R primer

<400> 30
 gagaggatga tcagccag 18