

LISTADO DE SECUENCIAS

<110> LAVIE BIO Ltd.,
VITERBO FAINZILBER, Ada
BERCOVITZ, Amir
KUZNETZ, Galit
MOVTCHAN, Anna
KIMELMAN, Hadar
IONESCU, Michael

<120> CEPAS BACTERIANAS QUE TIENEN ACTIVIDAD FUNGICIDA, COMPOSICIONES QUE LAS
COMPRENDEN Y USO DE ESTAS

<130> 10042

<150> US 63/184,791

<151> 06-05-2021

<160> 101

<170> PatentIn version 3.5

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<223> Secuencia de ácido nucleico de ARN ribosómico

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<223> Secuencia de ácido nucleico de ARN ribosómico

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<213> *Lysobacter* sp.

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<223> Secuencia de ácido nucleico de ARN ribosómico

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<223> Secuencia de ácido nucleico de ARN ribosómico

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<210> 9
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 <212> ADN
 <213> Pseudomonas sp.

<220>
 <221> misc_característica
 <222> (1378)..(1378)
 <223> n is a, c, g, o t

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

<400> 9

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<210> 10

<211> 1384

<212> ADN

<213> Paenibacillus sp.

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<221> misc_característica

<222> (201)..(201)

<223> n is a, c, g, o t

<220>

<221> misc_característica

<222> (1276)..(1276)

<223> n is a, c, g, o t

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

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<210> 11
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 <212> ADN
 <213> Rahnella sp.

<220>
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 <222> (159)..(159)
 <223> n is a, c, g, o t

<220>
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 <222> (1200)..(1200)
 <223> n is a, c, g, o t

<220>
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 <222> (1252)..(1252)
 <223> n is a, c, g, o t

<220>
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 <222> (1287)..(1287)
 <223> n is a, c, g, o t

<220>
 <221> misc_característica
 <222> (1302)..(1302)
 <223> n is a, c, g, o t

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

<400> 11	
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<210> 12
 <211> 1454
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <221> misc_característica
 <222> (423)..(423)
 <223> n is a, c, g, o t

<220>
 <221> misc_característica
 <222> (1322)..(1322)
 <223> n is a, c, g, o t

<220>
 <221> misc_característica
 <222> (1417)..(1417)
 <223> n is a, c, g, o t

<220>
 <221> misc_característica
 <222> (1425)..(1425)
 <223> n is a, c, g, o t

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

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<210> 13

<211> 1456

<212> ADN

<213> *Pseudoxanthomonas* sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 13

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<210> 14

<211> 1463

<212> ADN

<213> *Erwinia* sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 14

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<210> 15

<211> 1460

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 15

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<210> 16

<211> 1507
<212> ADN
<213> *Pseudomonas* sp.

<220>
<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 16
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aactcta 1507

<210> 17
<211> 1449
<212> ADN
<213> *Ensifer* sp.

<220>
<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 17
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<210> 18
 <211> 1457
 <212> ADN
 <213> Pantoea sp.

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

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<210> 19
 <211> 1504
 <212> ADN
 <213> Acinetobacter sp.

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

<400> 19

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<210> 20

<211> 1463

<212> ADN

<213> Enterobacter sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 20

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<210> 21

<211> 1457

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 21

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<210> 22

<211> 1507

<212> ADN

<213> Acinetobacter sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 22

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<210> 23
 <211> 1504
 <212> ADN
 <213> Bacillus sp.

<220>
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 <223> n is a, c, g, o t

<220>
 <223> Secuencia de ácido nucleico de ARN ribosómico

<400> 23						
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<210> 24

<211> 1483

<212> ADN

<213> Streptomyces sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 24

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<210> 25

<211> 1511

<212> ADN

<213> Streptomyces sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 25

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<210> 26

<211> 1481

<212> ADN

<213> Actinokineospora sp.

<220>

<223> Secuencia de ácido nucleico de ARN ribosómico

<400> 26

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1481

<210> 27

<211> 927

<212> ADN

<213> *Pantoea* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 27

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<210> 28

<211> 328

<212> ADN

<213> *Pantoea* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 28

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<210> 29

<211> 233

<212> ADN

<213> *Bacillus* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 29

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aaaataaaac	caaggcaaac	aggttttgat	tctccttgat	ataagggtata	aaccagcatt	180

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<210> 30

<211> 666

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 30

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aacgggtactg	ccaaccggcg	catcggtcgt	gccgggtgat	atgggctgcg	tgctgttgc	240
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<210> 31

<211> 587

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 31

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ggtgactgtg	gcatcaaccg	aatacgggct	ctcagccaat	ggctgattca	gctcgacgtt	540
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<210> 32

<211> 779

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 32

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<210> 33
 <211> 992
 <212> ADN
 <213> *Sphingobium* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

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<210> 34
 <211> 932
 <212> ADN
 <213> *Sphingobium* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 34	
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<210> 35
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 <212> ADN
 <213> *Sphingobium* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

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accgacgacc	ctttgagtaa	ttggtcagat	ttatTTTTTg	acatctacaa	cgcttttgat	420
agcgggggaat	ataggcggga	tggagacggg	gacgttgaac	cgagcgaaaa	atacactcgc	480
ccagaaattg	cacgaattct	ctcgatgaag	cggatgatgt	ttggatgacg	gcaagaggct	540
ggctaagcgc	caggctgttt	tccagtcctt	catacccctt	gctccgcggt	cttcgcgggt	600
ccgcgtaatt	cattttttgc	gcgagagccg	gaagagcgcg	gagggcaaa	aaggaagggc	660
gactttgggt	gg					672

<210> 36
 <211> 894
 <212> ADN
 <213> *Lysobacter* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400>	36					
cgtcaattcg	ttgcgggcaa	ccttgatcct	ggtcgcgcga	tcgaccttgt	cgttcggcaa	60
cgccaacatc	tacagccggt	ggcacaggag	attcgtgatg	aagttgatcc	ttttttttgc	120
tcttgtctcg	gcttcgctgc	ctgccttagc	tcaatgtcca	gcaggaatac	catctgctgg	180
taaccggggg	tgcattccgc	cggaccaaac	taattcgccc	tactatcaat	cagggggctc	240
tagtcaaagt	gctccaactg	ctcgttggga	tgatcgtttg	ggcgcaatcg	ccattgatga	300
tcgagatggg	ggtgtttggt	tggggaccgc	tcagatgatg	accaccgaac	gaaaggcaaa	360
aaagacagcg	ttggatgaat	gcccgggcaa	aggtgggact	agttgcgcgc	tgattttggc	420
gtactacaac	caatgtggag	ttgtggttgc	tggatgatgt	gggtggaatt	cgaccagtgc	480
aggttctatc	gatgaggctg	cgaagcggag	ttttgaaaag	tgtgaaaaaa	gcggcttgaa	540
gaactgcaag	gtgtactact	cgaattgcag	tctcgctgaa	cgaattaggt	aaatggtttt	600
tgttgcaactg	tttgtaaatg	tagagcgcgt	cttgctcgatt	tctgaacttg	ccttgaggta	660
aggatgtaca	ggatgttgc	tttgtcgtga	tgttcccccc	gatccgcggc	catccggtgc	720
aaggactgca	tcgtgcatcc	tccgtcaccg	tgggcgcctg	ccacgtgcgc	gacccgatag	780
cgataacgtc	gtcggccggc	gccagcggca	atgatcgtgt	cgctcccccg	taaactcgct	840
ccaaccctaa	ccagaggtct	ccaggcaaac	tagccccaa	gagaccacga	tgcg	894

<210> 37

<211> 784
<212> ADN
<213> *Lysobacter* sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 37
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ttgcggcatc gaacgtgccc gatatcgcat tgccattggc tcggtccgtg cagttccagc 180
ccgccagcac cgtcgtcgtc cagccgccgc ctggatcggg ctcggtaatc gtggtggcgg 240
tattcgccgc cgtcagattc accagcgccg attcgacttc ggtacccgcc gtcaccgtag 300
tcacgctctg acccggatag ccgttgctgc cgggtgaacgc gaacgtgccg gtacctccgt 360
cggaacgctt ccagatccgc atctgcgga cccgggtggt gacgaagggt cagcggaact 420
ggctgttggg cagcaccgac gccgcgggaa tcgtgtagggt gcggttgcg gcatcgaacg 480
tgcccagatat cgcattgcca ttggctcggg ccgtgcagtt ccagcccgcc agcgccgtcg 540
tcgcccagcc gccgcctgga tcggtctcgg taatcgtggg ggcgggtattc gccgcctca 600
gattcaccag cgcgattcgt acttcgggtac ccgcggtcac cgtgggtcac ctctgacctg 660
gatagccgtt gctgcccgtg aacgcgaacg tgccgggtacc tccgtcggaa cgcttccaga 720
tccgcatctg cgggcgcacg acagtattgg tgtagggtaca caccgccgcc gtgcccgtgg 780
tgat 784

<210> 38
<211> 751
<212> ADN
<213> *Lysobacter* sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 38
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tgcccgcggg tacaggtcac ctcggtggtg tagttgccca cattggtgcc gccctcagcc 180
ggcagcgtga tcacgttgcc gatcgtcacc gccaccgccg cgcactggtt ggccgcggtc 240
ggcgcagtcg cgttgaacga caccgtggtg ttgggtgccg ccgtgggtcg gccgatcgtc 300
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cgcgggggtg tgggtgtaggt acacaccgcc gccgtgccg tgggtgatggt cagcgtggtg 420
gtctgctgcc cgttgggtgcc cgacaagggt tgaccgccgg tacacgccag cgtggtggtg 480
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gtcactgccg cgcgcgtggt ggccgcggtc ggtgcgggtc cgttgaacga caccgtggtg 600
ttgggtgccg ccgtgggtcg gccgatcgtc acctggttgc cggcgatcga gccggccgcc 660
caggccttgg ccagctgcaa cgtcgccgtg cgcgggggtg tgggtgtaggt acacaccgcc 720
gccgtgccgc tgggtgatggt cagcgtggtg g 751

<210> 39
<211> 621
<212> ADN
<213> *Pseudomonas* sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 39
cgggggtgggg cggggggaggg ccgcgagggg ggtgccccgg gcgtgggggg ggcggcggcg 60

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ccttagagcc	aatccttata	ccgaagttac	ggatccggct	tgcgcacttc	ccttacctac	180
attgttccaa	catgccagag	gctgtttacc	ttggagacct	gctgcggata	tgggtacggc	240
ccggcgcgag	atttacaccc	tctcccccg	atthttcaagg	gccagcgaga	gctcacggga	300
cgccgcggga	accgcgacgc	tttccaaggc	acggggccct	ctctcggggc	gaacccattc	360
cagggcgccc	tgcctttcac	aaagaaaaga	gaactctccc	cggggctccc	gccggcttct	420
ccgggatcgg	tgcggttacc	gacttggaag	cctcgcggcg	cccatctccg	ccactccgga	480
ttcggggatc	tgaacccgac	tccctttcga	tgggcccagg	gcaacggagg	ccatcgcccc	540
tcccttcgga	acggcactcg	cccatctctc	aggaccgact	gacccatgtt	caactgctgt	600
tcacagatcg	gaagagcaca	c				621

<210> 40
 <211> 551
 <212> ADN
 <213> *Gordonia* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 40						
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acaccgtcac	cgccgacctc	atccacggcc	gccacgccat	catcgaaaacc	gtgttcgccc	120
acctcatcga	cggaccactg	gcgcactctg	cctccggacg	gttcggcgcc	aacgcgcct	180
ggctggccct	gaccgcgata	agccacaacc	tgatgcgcac	cctcgcgcga	ctcaccaaca	240
ccccacact	gcgagccgcg	cggggcgcta	cgctgcgcgc	cacactcatc	gcgatacccg	300
cccgactagc	ccgaccagca	cgaacaccgg	tgttgcacct	accccgacac	tggcccaccc	360
aacacgcctt	caccaccctg	tgggcccggg	ccaacaccac	ctgacctgac	gtcgccaccc	420
gccacccac	gaccaaggaa	cccagtgaa	aaggctgaca	caggtcagcg	aataccacac	480
gccacaaca	caatcaggcg	atcacgcgcc	ccaacccac	cccacctgaa	ctccttccac	540
ggatccaggc	t					551

<210> 41
 <211> 538
 <212> ADN
 <213> *Gordonia* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 41						
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tgtttctagca	gcggaagtgc	accaccaaga	accgaacttg	cggctgctga	accactacgg	120
tccgacggaa	accaccgttg	acctcacttc	agcgcagaat	gagcctggta	gatcggtaac	180
aatcgggtcgt	ccggcatgga	acactgcgac	ctgggtcctg	gattcgcgtc	tgaatcgggt	240
accggtcggg	gttccagggt	agctttacct	aggtgggtatc	cagctggcac	gcgggtacgc	300
ctcgagatcg	gatctgactg	cggcgcgttt	cgttgccagt	cctttcggcc	ccccgggtc	360
tgggtgttat	cgcaccggcg	accttgtgcg	atggaatacc	gaagggtgaga	tcgagtatct	420
gggcccgcacc	gacttccagg	tgaagttgcg	tgggcagcgc	attgagctcg	gtgagatcga	480
agcgggtgatc	gccactgcgc	ccgggggtggt	gcacaccgcg	gctacgggtca	tcgacgca	538

<210> 42
 <211> 538
 <212> ADN
 <213> *Gordonia* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 42

tgtggagaag	gagattccgc	gttctctggc	ctcgacgata	accgcgtcgg	cgagcggata	60
accctgcgtc	agaccgcct	cgaggcgctc	gacgatggcg	ggatgccgct	ctcggacggc	120
ctcccaattg	cgtgccccgg	tcaccgctgc	cgcgctccatg	cccatgatc	accccggcga	180
ctgggcccgt	caaggacggc	tgactcccag	acgtcgactc	gactgccaga	cctcgaccga	240
agtctggcgg	tcgagttgac	gtctgtcggg	ggcagcgccg	gacgaatgcg	gacacgctgc	300
cgcggctgac	tatgctcacc	gtgggggaccg	tcgtcgagcg	gacccttcgc	ccccatagcc	360
caattggcag	aggcagccga	cttaaaaagt	gcacagaaaa	ttcgcgtttt	cgcactcatc	420
cgggtgtttt	accggggctg	aggctogaagt	tgacacctac	agttgacaca	tgtcgggtgc	480
taagtcggtg	cccagggcgg	gactcgaacc	cgcaacacag	acattttaag	tgtcctgc	538

<210> 43

<211> 476

<212> ADN

<213> *Pseudomonas* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 43

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gggcaaattc	gtgtattg	aaaagcccct	ggcgggtgtcc	ctggagcagg	ccgaacagat	120
gcgccaggcc	gccaaaggcc	ccgggggtgg	gacgcgggtc	ggctacaact	accagcacia	180
cccgatcatt	caatgggcgc	gggagatgat	ccagcgcggc	gagctggggc	agatcatcag	240
tttccagggc	gaattcagcg	aagacttcat	ggccgatccg	acctcaccgt	ggatcatggc	300
ctgcaagcg	agccatgccg	gtggcgcgct	ggcggacctg	ggcagccatt	tgtcggccat	360
ggcccggcac	ttgttggggc	aggctcaggc	cgtctgtgcc	gacagccaga	ccgtgcacca	420
ccaacgccc	gccagcgccg	gcaatgctga	acaacgggct	atcgcggtgg	atgacc	476

<210> 44

<211> 466

<212> ADN

<213> *Pseudomonas* sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 44

ggcgtctgtg	agccaagatg	agctactcgg	tcgtctgcc	gcgttgacgg	tgcgggtggg	60
gctgctcgac	cgcgccgagc	gcgtgcgttg	cgggattgcc	ggcgggtcgtg	acgacaatcc	120
gctcgtttgc	gccctgggtg	cgcgccacct	ggcctacgtc	atctacacct	ccgggtccac	180
tggccatccc	aaaggggtga	tgatcgaaca	ccggggcctg	gtcaattatt	gcctcgatgc	240
ggctcgcctt	ttcggcttga	cgcgggcgga	cacggtgctg	caacagaaca	ccttgaactt	300
cgacctgtcg	gtggaagaaa	tcttcccggc	gttgttggcc	ggcgccacgc	tggcgcccac	360
ccggcaactg	tttggcagcg	ccgagttgca	acaaaatggc	gatattcgcc	cgaccttctc	420
gcacctgacc	gcggcccatt	ggcataccct	cgtggccgag	tggcac		466

<210> 45

<211> 461

<212> ADN

<213> *Pseudomonas* sp.

<220>

<223> Secuencia de ácido nucleico marcador

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<400> 45
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tcatcttcat gccttcggtg aacaagtctg ccgtctcacg ccagcgccacc acccccgaca 120
gcgagaaaat caggaacccg gccaggggcg cgaggatcat cgagtccacc agcagttgca 180
ccgcgaacgc cgcgcgccacc gcaacgcggg ccacgatcag gctcagcggg ttgtagtgca 240
cggccacttg ctcggccttg gcgatcttct tcaggtcgta gacgcgtttc ttgcggtacg 300
tgataaacga cagcaccagg ccaaacacca tgcccaacgc cgggataccc atggcatggg 360
tgatattgat gccactgatg tcgacgccgc tgcgggcgac attggccagc aggatttcat 420
tgaggaagat attgccgaag cccaccggca ggaacatata g 461

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<210> 46
<211> 439
<212> ADN
<213> Pseudomonas sp.

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<220>
<223> Secuencia de ácido nucleico marcador

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<400> 46
ttgcggggcg gtgctggcaa cgggtgtcgac caccggttga taaccggctt gcatggcatt 60
gaatgccgcc gccatctggc ccacttcgtc cttgcaggcc aggggcacgc gggcggacag 120
gtcgccggtt ttttccacgt gcagcatcac gtcccttgagc gtgttgagct ggctgagcaa 180
aaagcggatc aacagttgcg acgcgcccaa catcgccagc atcaaacaga acaccgccac 240
ggcgtatttg ctgaagcgtt caccgaacac ttggctcagg cttgcaccat gggccaatac 300
ggcgagttgc tggccgtcgc ctgcacggat cacttggggc cccagcaaag ggttgtcgcc 360
aaacagcagt ccgggggtcga gttctaccca gccgttggcc tgggtcagcg aaggcaatga 420
ttgttcattg ataacggga 439

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<210> 47
<211> 436
<212> ADN
<213> Pseudomonas sp.

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<220>
<223> Secuencia de ácido nucleico marcador

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<400> 47
ccctgggggt gggcatcggc gattacgtgg ccttcgatcc cctgccggaa ttcaccgaaa 60
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cgctcaaggc gattgtcgac agtggcgagg aactgctgat cgactgtcat ccgctgttca 180
ctatcaccga ggaaaccggc agcggcgagc cggccgcact gccttgggac gtcagcgagt 240
ttgtcggcat cgacatcgcc cccgtcgcac ccggccagca ctcgagcgaa cattcgggtca 300
gcgtggcgat gcaggactcc ggcggcccct acgactatca cctgtcgcgg cacctgctga 360
aactggccaa ggaaaacgac atctcggcac gccgcgacct gttccgctac tacttcagcg 420
acgtcattc ggccat 436

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<210> 48
<211> 491
<212> ADN
<213> Pseudomonas sp.

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<220>
<223> Secuencia de ácido nucleico marcador

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<400> 48

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tcgaagttgc	cgccgggatgc	atccttgatc	gtgacttcga	ctttgccagc	gtctttgtag	60
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atgacggagc	cgttgctcaa	cgtcacggtc	accgggggtgc	cgccgggggtt	ggtcaggggtg	180
gcggtgtaag	tgatcgagcc	accttcggcc	accgagtcag	tggcgctcag	ggtcagatta	240
gtggtatcga	cggtgtcagt	cacggtagtg	cttaccggag	tcttgtcggc	caccagattt	300
tcgtagttac	cgccgctcac	accggtgatc	gcattgggtca	gcggagtgtg	accgttcaac	360
gcgtcattcg	gcgcagtagt	ggtgatgggtg	ccgggtgggtt	tgccgacttc	gatagtgac	420
gactgaccat	tggccagggg	cacggtcaca	ggcgaaccag	tgacaggtgc	gccaacagtg	480
gcggtgtacg	t					491

<210> 49
 <211> 319
 <212> ADN
 <213> *Pseudomonas* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400>	49					
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ccggtcaaca	gcaggttctc	gacgttggcg	gtgaggggtg	agtcgatcga	agcgaataca	120
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taataggtgt	cgataccggc	gccaccttcc	atgcggtcgg	caccaaggcc	accatcgagg	240
acgttggtgc	cgtcggttgc	aaccagacgg	ttgtcgagct	cattgccggg	ggcattgatg	300
ttgccgttgc	cgatcagca					319

<210> 50
 <211> 212
 <212> ADN
 <213> *Pseudomonas* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400>	50					
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ccgatcagca	acaggttctc	gacgttggcg	gtgaggggtg	agtcgatcga	agcgaataca	180
cggtcggggg	ccgtcagcga	ggcatcggtt	tc			212

<210> 51
 <211> 498
 <212> ADN
 <213> *Paenibacillus* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400>	51					
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cggaataaga	gcaatcgcat	aagcagcaaa	agccatggat	agcatccctg	gtgtgagatg	120
ccactgttgc	ttgtatatcg	catagatggg	tgaacaaga	ttaagacca	tactgcat	180
aaacagacca	tatgcggctg	accaatagga	gaaacgcttc	gagcgtgtgc	gcaccttgcc	240
cagacagacg	acatccggta	gctgctgtaa	ggaatacagag	attctctcca	caccttcac	300
atccaattca	gcttgaatgc	gtacgcggga	cacatgccga	tctcgcgatc	ttatcgtggc	360
aattattgtca	atattgatcc	ccagactggc	aaacaaattg	gatatgcgag	ccagcactcc	420

ggggtgattg ttcacggtca cgcacaagac acacgccttc atggctctct cctccttttag	480
ataccgtaac agaatatg	498

<210> 52
 <211> 491
 <212> ADN
 <213> Paenibacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 52	
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gtatttttct aaaggtagtg tgggctatgg catccaaaaa tatgctttaa tttatattgt	180
ttttccaaga aggaggaagc atggcgattt ataaaaatcc aatctggcgc tggacgatca	240
atcttctgta tctgcgac atttttattt tccagagctg ggggccaatc ttagattcat	300
gggtttttcc tatattgttt gctgctttgt tttgtttctt atggagtgat gtgaaggata	360
tgctggcttc tacagtgtta acatggggag tagccattcc aatatggtgg tattttatcg	420
agcgtccaaa gcctacattc ggtgcagaac attttgccgc tcatctatgg ttaattgtgc	480
tgatgtatgt g	491

<210> 53
 <211> 485
 <212> ADN
 <213> Paenibacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 53	
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cgcggaggcg gccgacgtgg tgatcgctgc gtttgccctgc cagttgccgg gcgtctacat	180
ggacgccatg gccgcacggg gaaagccgcc gttgtggatg aacctcgact acctcagcgc	240
ggaagactgg gtagtcgggt gccacggatt gccgtcgggtg aagtacaagt cgggtgcagaa	300
gtactttttc tttccgggggt tccagccggg caccgggtggc ctggtgcgtg aaaacggttt	360
gctggagcgg cgtcagcagt ttcagcagga tcccgaggct cagcgacaat tctgacgg	420
tctggggatc gttcctgcag ccgatgcgca actgatctcg ctatttgctt acgagaatgc	480
cggac	485

<210> 54
 <211> 484
 <212> ADN
 <213> Paenibacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 54	
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ccccgactca tcgcgaaaag attaccccc caaaaatcat tgatccaaaa actgagaatt	240
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cgccagattt	tttgccgctt	catgttcata	gccacagtca	tactgctaga	ttccttcctg	420
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gaga						484

<210> 55
 <211> 480
 <212> ADN
 <213> Paenibacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 55	
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gtgcacttcg	atccccggat ggcgcctcgcg ataactgctgc agaattcttcg gcaacaactt 120
gatcgaggac	gtcgggtccga acgagccgat ggcgcagcgtg ccgcggtttca tgccgcgcgc 180
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caattgttcg	ccgatgtcgc tcagttccac ttgcgattgg tgccggcgaa gcagctcgac 300
gccagtttc	tggtccagcg acttcaaggc gtgggacacc gctgactggg aaatccccag 360
acgatgggcg	gcgaggggtga aaccgcgcag ttccggcgacc agcgagaaga ttccgagttg 420
ggtcagggtc	atgagtaaag actcatttta cgatgatgag gaatcaatcg aatgatacgt 480

<210> 56
 <211> 476
 <212> ADN
 <213> Rahnella sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 56	
gcctgtttct	ttccacctaa cccacagtta ttgacaggac tccgaggcgc gccggaggcg 60
ctttttaagg	tcaaaacctc aacgtcaacg gcggaagaaa cgatgcgcca ttgagttgta 120
cgggtttcat	aaacgcggga gtcgcccagg tgaggcgcga aaatacccac aacttttttc 180
acttctcat	cgtatgtgtt cagctcatca gccacgcggc gggctacacg cacagtctga 240
tcgtctcgtg	ggacatttgc gccgccttgg gctgacatgt acgccataaa atcaccggca 300
tcagcagcag	cgcgaacggc ttccacttct tcgtcaaagg ttccagtcag attgatggaa 360
cggatgcggc	ggcactcacg gtatgacccc atggtaggca ggccgatagg atgaaattga 420
gggatccgcc	aggtagcagc ccaggcggtg acagcggcag cggaatctgt cagcag 476

<210> 57
 <211> 492
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 57	
ctccaggcga	tccgctatat aaccattagt cgtgttttgc ctttcttcca ttccgatcag 60
gacttcgcgg	gcaatcgtgc tatcggaaga aagccattt cctcagatat gtctgtcaat 120
cctcagctgt	cagtgtttgt aattaggtag cgacagtcgt ctggttttaa aggtttctgt 180
tggcctcaaa	agacatatgg gtgaaattgc ttgtcgggtg tagggcggtta agttaaatat 240
caatatagt	g aataattatt ttaatgaact gtctgtcaat ttcataacaa ataattcact 300
ataaattgac	aattcagaag ttgcaaaaag agcttgccat gagccgaaaa atgctgcac 360
ttttgtaaaa	attcttaatc cgatgcgtca ctttaagtta gtgaggtaat gtttgagcca 420

gatttatgag	ttaaagttat	gactatactt	tcatcaacta	agtacattag	tcgttatccc	480
gttttgatgt	tg					492

<210> 58
 <211> 482
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 58						
tgcggagaaa	acagggccgg	cgccagtggg	agcctgctcg	acagcttggg	ctcccgtgtg	60
gactccgacg	ctccgatcga	gcagagggga	gagggctctt	agaactgcct	ggcgagtctt	120
cacgctcatc	ccggcgtaag	gcccattctc	ccagtcagac	acatcacgct	gtactgcctg	180
gagttgttgg	gtgtcgttgc	ccgcgttatg	tatccgggca	agggcattgg	ctgagtaagc	240
tgtttgctca	aacgtccgga	gttccttata	ccaaccgtcg	acaccatagg	cagtgcgccc	300
gaccgcctgg	acgccttcaa	cacgggcgcg	tttcaggatc	gtgttcagggt	ctgcgtctgg	360
ccttgctgca	gcgccttcca	ggcgcgtcaa	tcgagagcgc	agctcactct	ttgcttggcc	420
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ca						482

<210> 59
 <211> 482
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 59						
agcaagctca	tgcagctcgg	taagctcggg	gtagttaagc	ttagcatttg	caagtctggc	60
aatcgctttg	tcatgatttc	cagagctccg	cagcctctcg	atcagcgcaa	gatcgatgca	120
agcctcta	ctgcgtggcg	catttatccc	tgtagccttg	tatcgctggt	tgaagtagtt	180
atcatgctga	gtaacatgct	cttcaatcgg	ccattcgggtg	ttttctccag	ttgcagcatg	240
aatgactaaa	gattcaatgg	aaggcgcatt	tattgcttca	aggtcgcggc	tgtaattttt	300
ggccttagga	tggtgagtag	ggtgggtaag	ccgagtgaag	gcgatgtaga	ggcccactag	360
agccctatgt	tgatccgctt	tcaattggct	gcgcttggct	aacctatatt	ctagaacgtc	420
acgaacatca	taaagcttgc	cgtttgggta	gtcggccaaa	tactgatcta	caagagaaac	480
at						482

<210> 60
 <211> 469
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 60						
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atgaaggcag	gggcggtagg	ccgagcacct	cctcgcggat	agccaggacc	aggccccagc	120
agtcgagcag	gtatcgaccg	gccacgacct	cgccccgcgc	cccgtcttca	tacgtcgcgg	180
tgaaatattt	gtcgtacatg	gctactggta	ggtcagtgtc	ggagcgaaat	cgggtgggtga	240
gcggaacctg	ttccacatca	tgttgatcag	gtcgtaatag	ccggcctcga	tctggatcgt	300
aggtccatcc	atgggtccgc	cgaacgatgt	catccgggtat	ggcctgtcag	cgggctcgcc	360

gggaatgctg	tacaggtact	cgcggtaaac	gatggtgacc	ctggcctcgg	cttcgagtga	420
tgcacatgatc	agttgctgcg	cttcacccgt	tacgttgctcg	ataacgaag		469

<210> 61
 <211> 466
 <212> ADN
 <213> *Pseudomonas* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 61						
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ctgctgcca	acgatctgcc	ccagaagcgt	cccactgagt	ccttacacga	gagtcctgta	120
agccacaccc	tgcagtgaag	tgcattttca	cacccaagga	gaatgatgat	ggttgctcgc	180
aagacagttg	aagatctggt	catccatgag	ctttcggatg	tgtacagcgc	tgagaagcag	240
atcaccaaag	cattgccgcg	cctggctcgg	gcattctacca	acccactggt	ggctgatgcg	300
tttacctcac	acctggcgga	aaccagggg	cagatagagc	gcattgacca	gttgggtggag	360
tcggctggat	tgaaactcaa	gcggatgaag	tgcgtagcca	tgaggggtct	ggttgaggaa	420
agcaaagagc	tgctggatga	aatcgagaag	ggggcagtcg	tcgatg		466

<210> 62
 <211> 497
 <212> ADN
 <213> *Pseudoxanthomonas* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 62						
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tcagatcagg	cattgggcct	tgatatgatc	gagtcgccct	attggcgtgc	cgagttgagg	120
agtgatctgg	catggctcaa	gaagcatcgc	agctatcgca	gatggctctga	gaggcaacaa	180
gtcctattcg	agcgaaaact	gatgctggtt	gcatttcagg	tccgctcgct	cctggaaaga	240
ccgaaattca	atgatcaggc	acgcagcgtc	ggaatgtcgg	tgcttcggta	tagaaagatc	300
ggcaacagcc	catttaccgc	tactggttcg	gaatggccgt	acgagcgctt	caatatggag	360
gacccgaat	cggatgttct	gtccgtcttt	gacgtatgca	accagctcat	tcactactat	420
tggtatgcaa	cgtggtcggg	aaggcaggcc	tttgtttcca	tactcgtctt	ctcggattac	480
aagcggcaca	aatgtgc					497

<210> 63
 <211> 482
 <212> ADN
 <213> *Pseudoxanthomonas* sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 63						
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agttcgtggc	gtgtcactcg	aggccaaaga	cgcgcgtcgc	tcgttcggga	tgccgattca	180
acccaagatc	ttttaccctt	tctcatcag	aaccgataga	aagaccttcg	ttctgggttt	240
gtggccgcgc	gccattgcgg	tctgctatga	ccggcggaag	tttgatgagc	cgagcattgt	300
gcttcctcta	ccatcgggtg	tgcccgccct	gaacccgctc	cacgaccgat	tgagagtact	360
gcttgccgca	gcccgcgaaa	ggtccagcaa	tggtgaggtc	gcacgccaac	cgttagcgct	420

ggacgattct gcggccgcgt tcatggttga gcttaagtac cgcatacaagc aatggggatc 480
gg 482

<210> 64
<211> 481
<212> ADN
<213> Pseudoxanthomonas sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 64
caacatagcg cgatcttgga ttgcctgata agagcccacg atgcggcatg gccatgtatg 60
tttagagcga aactcagaat cgacttagtt tacttgaggc atccctcaac accccatcgg 120
cggcaaaaac cccaccgtcg ttacctccac ccatttcccc ttccgcagca cttccaccct 180
caccgcgacc gcgctgatcg ccacgaacgg cagcaccgtg cccagcgcgt cgccctcccc 240
tatgcgggga atccagtcac cggccatcgc cggatcgccc tgcgccaccg cgtacgcgcg 300
cactgcctgc tccagttccg cagcgtgtga gctggggaaa cagcgtgtgt gttccgctga 360
cggcgctcggc aacacgaacg acaccgcacg gaccgcctcc gccacctccc agtccgacac 420
acagtgttc cagtccgtga gatccaggtg cggaccttcc gcactcaggc ccaggctggt 480
t 481

<210> 65
<211> 481
<212> ADN
<213> Pseudoxanthomonas sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 65
ggcgccctacg tgaacctggg catcggcctg ccgaccctgg tcgccaaacca catccccgcc 60
ggcatggacg tctggctgca gtccgagAAC ggccctgctcg gcatcggcc tttcccgacc 120
gaggacgagg tggatgccga cctgatcaat gccggcaagc agactgtcac cgcccagcgc 180
ggagccagct acttcggcag ccacgactcc ttccgcatga tccgtggcgg ccacatcgac 240
ttggcgggtgc tgggcgccat gcaggtcacc gacaaaggcg acctggccaa ctggatggtc 300
ccgggcaaga tgggtcaagg catgggcggc gccatggacc tgggtggcggg cgtcaagcgc 360
atcgtcgtgc tgatggagca cgtggccaag gacggaagcc acaagatcct gccgcaatgc 420
gacctgccgc tgacgggtgt tgggtgtggtg gacaggatca tcacggacct ggcggttttt 480
g 481

<210> 66
<211> 479
<212> ADN
<213> Pseudoxanthomonas sp.

<220>
<223> Secuencia de ácido nucleico marcador

<400> 66
gccccggcggc aggcgggtat tgcccaaggg atagagcttg cctcgatct tgatgtacac 60
cggcgccccg gtggtgagaa acatgtccga ggcgttcttc tcggtcatca gtttcaggaa 120
atagccgatg tccatgtgca aagctcccaa gatgcgcggc gcgacgttgc aacggcgcca 180
aaggcttccg acaatggcgg cgcgcacccc tcaacgtcac ggcaccccaa tgacagttag 240
cttctcacac ttccgcggc cctgcacgtg gatggcggcc gcagtagcag cactggccgt 300
ggcggcgggg cctgcattgg ccagagcgc attgccccct gaactggaag ccgctgtgca 360

ggcagtgcag	cgcgagacc	aggccgatgc	ggaccagtac	gccccgcagc	cgctggaggc	420
cgcgagacag	gccttggcgc	aggcgagcgc	tgcgcatgcg	gcacgcgaca	agaaggacg	479

<210> 67
 <211> 827
 <212> ADN
 <213> Erwinia sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 67	
acggcagctg	gacgctggac
cgggcggtgac	ggcgagcgtg
tgaccgtcga	cgtgaccgtg
ttaacctggc	ggagcacggc
cgggcgaccg	ggtgacggtc
cgggcaactg	gagcgtcggg
tgaccatcgc	cgtgtcgggtg
tgctcggctga	caccgggctg
tgaacgcggc	tgaaaagggt
aaaacaccgc	ggtgacgggtg
acggcagctg	gagcctgacg
acaccctgag	cgccaccgcc
tgcaggtgaa	taccgccctg
ttaacgccgc	cgagctggcg
gtgccggcgg	cggacctggc
gggcatcgcc	gacggtgttg
ggcgtagcgg	agccacaacc
cgtggcgggc	gacgacgtga
ctcggcgagc	ggcgcgcgcg
caccacgggtg	ctggacgcgg
cgccctgcag	gacggcacgg
cggcggcggc	acgcgcgacg
catcagcggc	gacaacgtgc
caccagcagc	gggctggcgg
cgacgcgacc	accgcggcgg
ggcgctgggc	gaggcgaact
cgtcagcgcg	ggcgcggggc
ggtggccgggt	gacgacgtga
gcgggta	

<210> 68
 <211> 769
 <212> ADN
 <213> Erwinia sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 68	
gccagggtta	ccgctccgggt
tccagcgcca	gcgttttgcc
aggccgcgcg	cgatgccga
ccctggtcaa	tcgccacctc
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gtgccgtcat	cctgatccag
atgctgtttc	gcgccaccgt
gtggtgccgc	cgtcaagcgt
gacgccccgc	cgccgatgtc
aacataaact	gcgcattgct
ccaaagttaa	atgcggggtt
agcgctgat	taaacgcatt
accccgatat	ccgacgcaag
gatcagcgcg	ctgaagttct
gccagcttaa	ccagctgcgc
ttgtaggctc	cggtagcgcg
ggccccgggc	atcctgcagc
gtccgatcag	ccggcgctgc
cgtccgggggt	cacccggacg
tgctgccgtc	ggtaaactgc
cgcccgcgcc	cacggtcacc
tggcggtatt	gttgccggac
agttgtttcc	ggtgttgtcg
tcagcgcgcc	gctcccgggtc
cgctgccgtc	agcaatatcc
tgacatccg	

<210> 69
 <211> 413
 <212> ADN
 <213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 69

gcggcgatgc	cggtgtgcac	gccagtcttg	aagttcaggg	tgataccggc	accggcgctcg	60
gtatacgaca	cggtatcggt	gcccgcgcca	ccgatgaagc	ggtcggcacc	ggcgccacca	120
cgcatacagt	cgttgccact	gccaccgggtg	atgatgttgt	cgctggcatt	gccaaaccccg	180
gtaaagttgc	cggtaccaat	gtaggtgagg	ttttccacct	caggggtcag	ggtgtagctg	240
gccagggctg	tgcgcacctc	gtcgatgccg	ccgccagcct	gctcgaacac	gccagcggtg	300
ttgtacaggt	aataggtatc	gttaccggca	ccaccggcaa	agctcttgct	cgaacctgtc	360
gcctgcatga	tgaaggtgtc	gttctggctg	ctgccgatga	cactgtacat	gcc	413

<210> 70

<211> 389

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 70

ccaaacgctt	cggtctggat	cgacgtttgt	cagtccatcg	agtccggcaa	tggcctcgcc	60
cagcaagtgc	agaccaacac	cgccaagatc	gaggaggtgg	acgggaaggt	cgaagcatca	120
gccagccagt	tgagcgcgct	gcaagcggca	tggcgtccgg	acagcgggga	gggagagctt	180
gcggatgcgc	tcgcgggctg	gagctccaag	gctcgtctgg	ctcgcgagca	gctggtccga	240
gcgagcgaaa	ccgaagcgct	tgcgcgagc	tccgaaacgc	tcgacgcaa	gattggccag	300
accaacgcaa	cggtccagac	cgtcagccag	gcccaggcca	acctcgaggg	taaggccagc	360
acgatgtggt	cggtaaagat	gcagctgaa				389

<210> 71

<211> 323

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 71

atgaaggtgt	cggtctggct	gctgccgatg	acactgtaca	tgcccgtgaa	cttgtcacc	60
tcggcgctgc	cacctgcc	cttgccaccg	gtgttgctga	ttgtgatggt	cactgcctgc	120
tcggacagt	aatagtccat	cgtgtcggtt	agaccgccct	cgaaggtgtg	cgcacgagcg	180
tcactaatga	aggtatcggc	gtagtccgaa	ccctggaaca	gttcgatgct	gtcgaaggta	240
tcgccagcgg	cgatgccggt	gtgcacgcca	gtcttgaaagt	tcaggggtgat	accggcaccg	300
gcgtcggtat	acgacacggt	atc				323

<210> 72

<211> 601

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 72

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tgctggtggt	ggtctgcctg	ccacggatca	gcacgcacct	gtacttgccg	gcgctgccgg	120
ccatggccga	cgacctgttg	gccagcgacg	ccagctgca	actgacctg	agcctgtaca	180

tgctcgggcta	tgccctgtcg	atgctgctgg	gcgggcgct	gtgcgaccgg	tatggccggc	240
gcccgggtgct	gctggcgggc	acggcgctat	tctgctggc	cagcctggcc	tgcatgctcg	300
ccgccaacgt	cgaggtgctg	atggtcgccc	gcctgctgca	agcgttgggc	ggttgctgcg	360
gcaccctgat	cggcggggtc	atggtcgcg	accgctgcg	ccccgaggag	cagccgcat	420
tgctcgggct	gttgtccatg	ggcattgccc	tgctgcgcat	gctggcgccg	ccgctgggca	480
gcctgatcga	ccacctgctg	ggctggcgcg	gcttgtttct	atgcctgagc	ctgggtggcg	540
cggcggcctg	gctgctgatg	tacaagcgcc	ttgccgaaac	ccgcccggcc	cagctctgcc	600
c						601

<210> 73
 <211> 450
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 73		
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gtggcgggat	accggcgctc ctgcggggtt acccagggct caatgcctgc gttcggccat 120	
cgtgggttaac	ggggcggttca gatcaagatc aaaaaccaga gcaagatcaa aatctgacgg 180	
cggcctaccg	gcgggcctag tttcatttgt cctttacagg gtgacgttgc ttttggcagg 240	
ggcgaaggtc	ctgcggacct ttgcgcagct tcgcaggctc agcagcggtc acagaacgca 300	
catactctgt	agccgctgcc gcaggctgcg aacggctccg caggagacgc ggggatctta 360	
aggccgccc	agatcggcag gcgatcgtca agcaaggctc tgccggacctt tgccgcagctt 420	
cgcctgtggc	cagcagcggc tacagggcc	450

<210> 74
 <211> 302
 <212> ADN
 <213> Pseudomonas sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 74		
aaagcaagat	caaaatctga cggcggcctg ccggccggcc tgtttcattg ccgttcgcgt 60	
taatgtagcc	gctgcgcgag gctgcgaacg ctctggggcg cactccgtcg caggagacgc 120	
taaacctgcc	tcccagttt tctgacata ccgcgtcgcc ctctttcgca gcctgcggca 180	
gcggctacaa	agagccggcc tgccgacctt ggctttggct tttgatcttg ctcttgatct 240	
tccggcccc	tcccagccgg ccgagcgtag gcgttgcgta gggggcagct cggcatggat 300	
gc		302

<210> 75
 <211> 921
 <212> ADN
 <213> Ensifer sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 75	
tttaccgaca	tgggcagcct cagcgtgacg atcgccggcc agccgctcga ccatctgctt 60
tatcacttcc	ggctgggtctg gtcgggcttc gaacacgccc atgtcatcct tggcggtgaa 120
agcttcgtcg	ccttggcgga gggactgcag aatgcctgtt ggtcggtcgg cggttcgccg 180
ctctatcacc	gcagcgacag cctgtcggct gccttcgcga acctcgacgc cgatgccaa 240

gtcgatctga	caaaccgcta	tgaagacct	tgcgctcatt	accggatgac	gccgacgcgc	300
aacaacaagg	gcgtcgctca	cgagaacggc	tcaatcgaaa	gttcccaagg	ccatctcaag	360
aacgcagtc	gcgatgcact	cctgatgcgc	ggcaccggag	acttcgacga	tctccgctcc	420
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gatgccgagc	gcccgcatct	gcaggcactt	cccagagcgc	gcaccaccga	cttcgaggag	540
gtggtcgtca	ccgtgtcgcg	caccggcggc	ttcgcccttg	gcaaggctct	ctacaccgtc	600
ccctcccggt	tgatcgccca	ccggctgcgt	gtgcgtttgt	tcgacgatcg	cctcgacgtc	660
ttcgtcggcg	gcacgcctct	gctgacgttg	ccacgcgggtc	gcgcgcgacgc	gagcggcagg	720
catgaccagg	tcgtcaacta	tcaccacgtc	atccactctc	tgcgcaaaaa	gcccatggcg	780
cttctcaacc	tggtctatcg	cgacaagctc	tttccccggc	cgggaatatcg	aagggctttc	840
gacgctctca	tcgagcaact	gcctgaccgg	caggcttgca	agatcacctg	cgaattgctg	900
gccctggcgc	atgatcgcg	c				921

<210> 76
 <211> 911
 <212> ADN
 <213> Ensifer sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 76						
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gtcgtgttca	ccaccgtggg	ggtcgcaatt	tccttcttgg	gagaaatgct	ccgacgcgct	120
caacatgagt	taacaaccgc	tgacgaagcc	ttgcgtacta	gagaggcgca	tctccggtcg	180
atcctggaca	ctgttctcga	cgccaccatc	gtcagcgagc	aggacggcac	gatcgatatcg	240
ttcaacgctg	cggccatcag	acagtttggc	taccgcgaag	atgaggtgat	cggccaaaat	300
ctgcggtatgc	tgatgcgcga	accctatcgc	aaggaacacg	acggctatct	cgagcgggtac	360
ctctcgaccg	gtgaaaaacg	tattatcgga	accgaccgtg	tggtcgtcgg	tcaacgaaag	420
gacgggtcga	cctttcccat	gaaacttgcc	gtcggggaga	tgagatccgg	tggtcgaagg	480
tttttcacag	gttttatacg	cgacctgact	gagcgcgaag	aatcgggcgc	tcgtctgcaa	540
gaggttcaga	cggagttggc	tcgcctcgcc	cgtctcaacg	aaatggggcg	aatggcctcg	600
acgctcgccc	acgaattgaa	ccagccactc	tcgcgtatag	ccaattatgt	ccacggttgc	660
gggcggtcgc	ttcagcaagc	cgaaagtccg	cgcgacatcc	agatacggga	tcgctggaag	720
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accaagggag	agacggataa	gtctccccac	aacctgcggc	aactgggtcga	agaagccggc	840
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<210> 77
 <211> 863
 <212> ADN
 <213> Ensifer sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 77						
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gatcacgaat	ccaacatcgg	tccttgggac	cggttgcagg	aacgcggcgt	catcttgaag	180
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agcgagcgca	cgaagctcgt	ctgtgtgact	cattgtctcga	acatcctcgg	ctccatcaat	300
ccgatccgcg	agatcgccga	tttcgtccat	gcccggtggcg	ccaagatctg	cgttgatgcc	360
gtcgccctatg	ccccgcaccg	ggcggtcgac	gtgcaggcct	tcgacgtcga	ctattacgtc	420
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cgttcgcgca	acgactgccg	gatcatcggg	cagtcggcga	accccgacag	ccaacgtgtg	780
cccaccattg	ccttcgcgtt	cgatggacgc	gaggcggcag	acctctgcaa	ggccatggac	840
gccgagaaga	tcgccatgcg	ctt				863

<210> 78
 <211> 695
 <212> ADN
 <213> Pantoea sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 78						
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atgtccgcca	gcgtggcctg	ccatttgga	agaatcccg	tgccgttctc	gcctgtgacg	180
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ctgccggaag	ataaggtgcc	attaccactg	ccggtgacct	ttacttcaga	attagtcacg	600
ttaagtaccg	atttcgaatc	tgccgtcaga	ccattagcac	ctgcgcgcgt	gaccgcaagc	660
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<210> 79
 <211> 516
 <212> ADN
 <213> Pantoea sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 79						
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gatgacgcgc	cggtccacgc	cgagctgccg	ctcagggtga	tctggctgtc	ctgcgtctgg	480
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<210> 80
 <211> 455
 <212> ADN
 <213> Pantoea sp.

<220>
 <223> Secuencia de ácido nucleico marcador

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<400> 80
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<210> 81
<211> 685
<212> ADN
<213> Acinetobacter sp.

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<220>
<223> Secuencia de ácido nucleico marcador

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<400> 81
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gacttacgat gccggcaccg gccaaatcac cgtgcctgca ggcgtagcca gcttcaccgt 240
gggctatgca accactcaag acaacatctt tgaggcggac gaaaccacaa ccttaaccat 300
cggcgggatca acgggtacag gtacgatcac caatgacgat gcggtaccga ccttaagcgt 360
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caccggccaa atcaccgtgc ctgcaggcgt gaccagcttc accgtgggct atgcaaccac 600
tcaagacaac atctttgagg cggacgaaac cacaacctta accatcggcg gatcaacggg 660
tacaggtagc atcaccaatg acgat 685

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<210> 82
<211> 362
<212> ADN
<213> Acinetobacter sp.

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<220>
<223> Secuencia de ácido nucleico marcador

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<400> 82
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cttggccatc gctgatgctg tagctgaagc tttcttgacc gctaaagcct gcgttcgggtg 180
tgaaggatgat gttgccttgg gcatcgatgt tcaccacacc gttcgggggtg ttgatttggt 240
gggcggtgcc cgggggtcaag gtcacgccat tgatcgcagt aatgatcagt ggggttgccat 300
ctgcacgggt atcatttgcc aatggggttga gggtcactgg cgtggttgaat gcggtgttgt 360
ac 362

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<210> 83
<211> 284
<212> ADN
<213> Acinetobacter sp.

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<220>

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<223> Secuencia de ácido nucleico marcador

<400> 83

ggccaagcac	acgagggtag	ccttttggtt	gtttgcaatc	tctgcttttg	atgggtcaaa	60
caaggagacc	ttgggtggag	tcacatttct	cagatcctct	aggacgggtga	gtcgtgtccc	120
tgggtccgaag	aactgctcag	catagttaca	cagcagaaaa	gggctaccaa	gaattcttcc	180
tctttcctca	ccttcctcaa	tacagacccg	gggttactca	cattctccat	ctacctccag	240
aactcccat	ataagaaata	tcatgcagga	caacgggggt	aata		284

<210> 84

<211> 203

<212> ADN

<213> Enterobacter sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 84

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ataaaaactt	tgggtggagcc	ttcggccaga	aacagcgggc	cgggtgcgag	gtgccattta	180
ctgcacgtaa	tctggtcctg	cgg				203

<210> 85

<211> 200

<212> ADN

<213> Enterobacter sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 85

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acggtcactg	ttggcagcga	cggtagcttg	agcttcacca	ccccagccct	gaccgatggc	120
gcacacagcc	tgaccaccac	cgtgaccgat	gcggcgggta	acgtcagccc	ggcgagcgat	180
ccgatcagct	tcaccgtgga					200

<210> 86

<211> 896

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 86

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cacaccggca	catgcggctc	gatgttcttt	tcttcgacca	tccaggccag	catcggggca	240
gtgccgtagg	cgggtgtccc	gatgaggcgt	tccggcgtga	ggtcgaaactg	cgttcgaca	300
cgtccacca	tgttcttgg	cgaatcgact	tccggcggtac	ggtgcgcgg	agtcgcctcc	360
acatccatga	tcacgcgcta	ctcagtatcg	atcaggtaat	tcttgaggta	ggcaaagaag	420
gccgggccc	ctggtgcagc	agtccaacgg	gacagcggat	cagtgcgcga	gattttcttg	480
ggaagagctt	cagccagcgc	ctcttcacga	agggcttcaa	ggtactcgcg	cacagcgcgg	540
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cggccgtggc	gattcttcga	aaaggctcag	tgattgggtg	cttcgtcttc	caggcccagt	780
cggcagaacc	agcgataggc	cagatttaaa	tgcacttctt	cgcacagccg	tcgctcggaa	840
cggatgccgt	agcagtagcc	aacgaccagc	atgcgcacca	tcaactctgg	gtcgat	896

<210> 87

<211> 766

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 87

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gtggttctgc	tcgtgcgttc	gatcagatcg	acaacgcgcc	ggaagagaaa	gctcgcggta	180
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tgttctccat	ctccggccgc	ggtaccgtgg	ttaccggtcg	tggtgagcgc	ggcatcgtca	720
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<210> 88

<211> 747

<212> ADN

<213> Pseudomonas sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 88

gccctcgatg	tttgagcccc	agggcggggc	gttgctcggc	gttatccggc	atggcagccc	60
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gccctccagg	cagagcgcaa	agcgtgaatg	gtcatcgagc	accgtcagcg	ggtgacatcg	180
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cacctggcag	ccatggcgcc	ggagaatcgc	atcgagggtg	ctgtgatgag	ggcgatccat	360
agcctttggc	agcaggtgaa	gcagcttgcg	agcgcccca	taagggaatt	ggtgatgcag	420
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ggactgatcc	tcagggccgg	aatccccag	ttcttgatat	cgctccagcc	atttgtaagc	540
cgtcttgggg	ctgatgccgt	agcgtcgaca	gagctcccg	atggtgctct	gcgggtggtg	600
ggccaacagt	acgaattcac	gtcgtatcga	catggtgggt	cactcctgcc	acggcatcgc	660
tcgaactcct	cttcgaagga	ttccgtaagc	ctaaatgcgt	tacctatgtc	ccccgacacc	720
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<210> 89

<211> 292

<212> ADN

<213> Acinetobacter sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 89

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tattattaaa	aatactatgg	ttttagtaac	catcatgagt	accacctcta	ctttaagtcc	180
ccaacagctc	ctttttcttt	agccagtttt	aaataagggg	tcgtctcagg	aaacggaaaa	240
tatagcacgc	taaggatttt	cactccgact	tcttttaacg	atatccaaca	cg	292

<210> 90

<211> 286

<212> ADN

<213> Acinetobacter sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 90

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gactagccaa	tacttagttt	gataagtttt	tctctgcaga	tctaattattg	aattttataa	180
aatatcatta	caaacagata	ctaatttcat	ggcactgttg	caaataacca	cgaatggtaa	240
gctgaagact	gttttagcta	aaggtgcagc	atatgaatcc	tttcca		286

<210> 91

<211> 206

<212> ADN

<213> Acinetobacter sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 91

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ataccacca	ctccacctga	acatgaaggc	aagaacatgg	tttatgtttt	tgatagtggag	180
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<210> 92

<211> 726

<212> ADN

<213> Bacillus sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 92

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tctggcctgg	aggctatcca	gcgtactcca	aagattcagg	tttactcacg	tcatccagca	180
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gaagttgact	tactgaagaa	tgagagagaa	attgaaaaag	tgagagcattc	agacttgtct	300
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gatgagtatg	cctgcgcgtg	gaaccatgtg	actttgtcac	agcccaagat	agttaagtgg	420

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<210> 93
 <211> 670
 <212> ADN
 <213> Bacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 93	
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atgaataaoc	ctgggtcttta
agattaatcg	acacatatcc
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<210> 94
 <211> 656
 <212> ADN
 <213> Bacillus sp.

<220>
 <223> Secuencia de ácido nucleico marcador

<400> 94	
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ttagcctcat	gcacatatatt
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cgcgtataaa	agtcttttag
ttaggcacac	ctttgatata
tgatttttag	gtaaatcaag
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<210> 95
 <211> 876
 <212> ADN
 <213> Streptomyces sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 95

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gacgcggcg	ggtaggcgcc	gccggggtcg	gcaggtcccc	cgggggtggg	cgctcccggg	840
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<210> 96

<211> 767

<212> ADN

<213> Streptomyces sp.

<220>

<223> Secuencia de ácido nucleico marcador

<400> 96

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<220>

<223> Secuencia de ácido nucleico marcador

<400> 97

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