

2 Sequence listing (OPA19089)

<110> CJ CheilJedang Corporation

<120> Novel promoter and method for producing purine nucleotide using the same

<130> OPA19089

<150> KR 10-2019-0022546
<151> 2019-02-26

<160> 25

<170> KoPatentIn 3.0

<210> 1
<211> 200
<212> DNA
<213> Unknown

<220>
<223> purA promoter WT

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tgcatggcta aatacattat cactggcgat aaaggtagag ttaacgcgta tttagcctta 180
aatctaggaa gtgaataacc 200

<210> 2
<211> 200
<212> DNA
<213> Unknown

<220>
<223> purA modified promoter (a189t)

<400> 2
ggcaaaattg ccgccgcagc ttcatcgatt attttcagtt cttgacgcgt cggaatcgcc 60
gatacctggg gatattcaac atctggcacc gggacatcac cgcagcgcaa aatacgaact 120
tgcatggcta aatacattat cactggcgat aaaggtagag ttaacgcgta tttagcctta 180
aatctaggta gtgaataacc 200

<210> 3
<211> 200
<212> DNA
<213> Unknown

<220>
<223> purA modified promoter (c143t)

<400> 3
ggcaaaattg ccgccgcagc ttcatcgatt attttcagtt cttgacgcgt cggaatcgcc 60
gatacctggg gatattcaac atctggcacc gggacatcac cgcagcgcaa aatacgaact 120
tgcatggcta aatacattat cattggcgat aaaggtagag ttaacgcgta tttagcctta 180

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aatctaggaa gtgaataacc 200

<210> 4
<211> 200
<212> DNA
<213> Unknown

<220>
<223> purA modified promoter (c143t, a189t)

<400> 4
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gatacctggt gatattcaac atctggcacc gggacatcac cgcagcgcaa aatacgaact 120
tgcatggcta aatacattat cattggcgat aaaggtagag ttaacgcgta tttagcctta 180
aatctaggta gtgaataacc 200

<210> 5
<211> 1500
<212> DNA
<213> Unknown

<220>
<223> purF

<400> 5
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tactttggtc tgttcgcatt gcagcatcgt gggcaggaag ctgcaggtat cggcgtcggc 180
gatggagacc gcctcgttgt cttcaaagac atgggcttgg tctcgaatat tttcgatgag 240
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gcccgggaat cgggcctgac atttgcgcac ggcttggtca aaaacgccta cgtgggtcga 1020
accttcattc agcccacca gacctgacg cagctgggta ttcgcctcaa gctcaacccc 1080

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ctgcgcgagg tcatcgaggg caagtcactc gttgtttag atgactctat tgtccgcggc	1140
aacaccaac gcgcgctggt gcgcatgctg cgtgaagcag gcgctgctga agtgcacgtg	1200
cgcattgctt caccgccagt caaatggcct tgtttctacg gcattgactt cgcctcgcct	1260
ggtgaattga ttgctaatat caagccttct gatgacctc aggtagtaac cgatgcagtg	1320
tgcgaagcta tcggagcaga ctctttaggg tttgtatctg tagatgagat ggttgaggca	1380
acgcaccaac ctatcaattc cttgtgtacc gcttgctttg atggcaacta cgaactcgga	1440
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<210> 6
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> purF gla-1

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<210> 7
 <211> 37
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> purF gla-2

<400> 7 aagtagtggt caccatgacg ctgattctac taagttt	37
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<210> 8
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> purF gla-3

<400> 8 agtagaatca gcgtcatggt gaacactact ttccccag	38
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<210> 9
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> purF gla-4

<400> 9 gctctagact gtgcgcccac gatatccag	29
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<210> 10
 <211> 1821
 <212> DNA
 <213> Unknown

<220>
 <223> guaB

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gacacttcgg cgcagttcac ccgcaatact cgtttaggta ttcctttggc atcggctgcg      180
atggacacgg ttactgaggc gcgcatggct attgccatgg cacgccaggg tggcattggt      240
gtcttgacc gcaacttgct ctcgaagag caggcggagc aggtcgaaat cgtcaagcgc      300
atgaccgaaa atcgtgtttc taccggtgga gatgacccaa ataaggttgc attgcatggc      360
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gacacttcgg cgcagttcac ccgcaatact cgtttaggta ttcctttggc atcggctgcg      480
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gtcttgacc gcaacttgct ctcgaagag caggcggagc aggtcgaaat cgtcaagcgc      600
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gttgatgacc tgtgtgcacg cttccgcata tctggtcttc ctgtggtcaa cgaagacggc      720
accttgttgg gcatttgac caaccgcgat atgcgctttg agcgcgacta ttcccgaag      780
gtttctgaca tcatgaccgc tatgccgctg gttgtggcaa aagaaggcgt cagcaaggaa      840
gaagccctgg atctgctgtc gacgaacaag gtagaaaagc tacctatcgt tgataaaaac      900
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gaccgctact tccaggcaga tgtgcgcagc gaagataagc tggttccaga aggcgtggaa     1620
ggcaagggtt cttaccgcgg cgaaattggc cagattaccc accagattgt gggcggtttg     1680
cgcgcgggcaa tgggctacac tggctccgct actattgaag agctgaagac caagcagttc     1740
    
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gtgcgattta ccactgctgg cttggctgag tcgcacccgc accacctgca gcaaactgta 1800
gaagctccga actaccgtta a 1821

<210> 11
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> guaB alt-1

<400> 11
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<210> 12
<211> 37
<212> DNA
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<220>
<223> guaB alt-2

<400> 12
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<210> 13
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> guaB alt-3

<400> 13
aggagaagac ccgtattgac cgaaaatcgt gtttct 36

<210> 14
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> guaB alt-4

<400> 14
gctctagaat cgacaagcaa gcctgcacg 29

<210> 15
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> purA promoter F

<400> 15

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<210>	19	
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<223>	purA c143t-1R	
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<400>	20	
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<210>	21		
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<223>	purA a189t-1R		
<400>	22	ggttattcac tacctagatt taag	24
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<223>	purA a189t-2F		
<400>	23	ttaaactctag gtagtgaata acc	23
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<223>	Site-directed mutagenesis F		
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<400>	25	tagctgccat ggttattcac tacctagatt taaggcta	38