

SEQUENCE LISTING

<110> The University of Tokyo

<120> Logical engineering of T-stem of tRNA that enhances D-amino acid incorporation

<130> T0529AJP0015

<150> JP2019-209114

<151> 2019-11-19

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<170> PatentIn version 3.5

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ccagucagag ccgcca 76

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ccccucagag ccgcca 76

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cccgucagag ccgcca 76

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cauugcagag ccgcca 76

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ccagucagag ccgcca 76

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ccccucagag ccgcca 76

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cccgucagag ccgcca 76

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cauugcagag ccgcca 76

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ccagucagag ccgcca 76

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ccccucagag ccgcca 76

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cccgucagag ccgcca 76

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cauugcagag ccgcca 76

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ccagucagag ccgcca 76

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ccccucagag ccgcca 76

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cccguagag ccgcca 76

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cauugcagag ccgcca 76

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ccagucagag ccgcca 76

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ccccucagag ccgcca 76

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cccguacagag ccgcca 76

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cauugcagag ccgcca 76

<210> 119
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<213> Artificial Sequence

<220>
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<400> 119
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ccagucagag ccgcca 76

<210> 120
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ccccucagag ccgcca 76

<210> 121

<211> 76

<212> RNA

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<220>

<223> AsnE2

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cccgucagag ccgcca 76

<210> 122

<211> 76

<212> RNA

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cauugcagag ccgcca 76

<210> 123

<211> 73

<212> RNA

<213> Artificial Sequence

<220>

<223> mRNA12

<400> 123

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caaguaagcu ucg 73

<210> 124
<211> 121
<212> RNA
<213> Artificial Sequence

<220>
<223> mRNA13

<400> 124
gggcuuuau aaggagaaaa acaugaagaa gaagacaaau uucgguaucc gugccucugu 60
cauggaaugg caacugcucc auccauacga cuacaaggac gacgacgaca aguaagcuuc 120
g 121

<210> 125
<211> 127
<212> RNA
<213> Artificial Sequence

<220>
<223> mRNA14

<400> 125
gggcuuuau aaggagaaaa acaugaagaa gaagcuccau auguugguca cagaacuguc 60
uauvcgcgcaa aaauucgguu gggugcgugc cccagacuac aaggacgacg acgacaagua 120
agcuucg 127

<210> 126
<211> 45
<212> RNA
<213> Artificial Sequence

<220>
<223> mRNA12 in Fig.2d, Fig.4a, 4b, Fig.7 and Fig.9

<400> 126
augaagaaga agguacuacga cuacaaggac gacgacgaca aguaa 45

<210> 127
<211> 93
<212> RNA
<213> Artificial Sequence

<220>

<223> mRNA13 in Fig.5c

<400> 127

augaagaaga agacaaauuu cgguauccgu gccucuguca uggaauaggca acugcuccau 60

ccauacgacu acaaggacga cgacgacaag uaa 93

<210> 128

<211> 99

<212> RNA

<213> Artificial Sequence

<220>

<223> mRNA14 in Fig.6a

<400> 128

augaagaaga agcuccauau guuggucaca gaacugucua ucgcgcaaaa uuucgguugg 60

gugcgugccc cagacuacaa ggacgacgac gacaaguuaa 99

<210> 129

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> P12-npAA

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<223> N-Formylmethionine

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> nonproteinogenic amino acid

<400> 129

Met Lys Lys Lys Xaa Tyr Asp Tyr Lys Asp Asp Asp Asp Lys

1

5

10

<210> 130

<211> 14
<212> PRT
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<220>
<223> P12-Phe

<220>
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<222> (1)..(1)
<223> N-Formylmethionine

<400> 130

Met Lys Lys Lys Phe Tyr Asp Tyr Lys Asp Asp Asp Asp Lys
1 5 10

<210> 131
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> P12-MeF

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<220>
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<222> (5)..(5)
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<400> 131

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1 5 10

<210> 132
<211> 30
<212> PRT
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<223> P13

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<223> N-Formylmethionine

<220>

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<222> (7)..(7)

<223> MeY

<220>

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<222> (9)..(9)

<223> MeA

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<222> (11)..(11)

<223> MeF

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<222> (13)..(13)

<223> MeV

<220>

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<222> (18)..(18)

<223> MeG

<220>

<221> MISC_FEATURE

<222> (19)..(19)

<223> MeS

<400> 132

Met Lys Lys Lys Thr Asn Xaa Gly Xaa Arg Xaa Ser Xaa Met Glu Trp
1 5 10 15

Gln Xaa Xaa His Pro Tyr Asp Tyr Lys Asp Asp Asp Asp Lys
20 25 30

<210> 133

<211> 32

<212> PRT
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<223> MeNv

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<222> (23)..(23)

<223> MeF

<400> 133

Met Lys Lys Lys Xaa His Met Xaa Xaa Thr Glu Xaa Ser Xaa Xaa Gln
1 5 10 15

Asn Xaa Gly Trp Xaa Arg Xaa Pro Asp Tyr Lys Asp Asp Asp Asp Lys
20 25 30

<210> 134

<211> 17

<212> RNA

<213> Artificial Sequence

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<223> D-arm of tRNA

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<222> (1)..(2)

<223> n is a, c, g, or u

<220>

<221> misc_feature

<222> (5)..(13)

<223> n is a, c, g, or u

<220>

<221> misc_feature

<222> (16)..(17)

<223> n is a, c, g, or u

<400> 134

nngcnnnnnn nngcnn

17

<210> 135

<211> 21

<212> RNA

<213> Artificial Sequence

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<223> n is a, c, g, or u

<400> 135
nngcgcagcc ugguagcgc n 21

<210> 136
<211> 21
<212> RNA
<213> Artificial Sequence

<220>
<223> D-arm of tRNA

<400> 136
gcgcgcagcc ugguagcgc c 21