Extension of Genetic Marker List Using Unnatural Amino Acid System: an Efficient Genomic Modification Strategy in *Escherichia coli*

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Supplementary Data

Table S1. Oligonucleotides used in this study.

Name	Sequence (5' → 3')
Cre-KpnI-F	CATAGGTACCATGTCCAATTTACTGACC
Cre-EcoRI-R	CACTGAATTCCTAATCGCCATCTTCCAG
TyrRS-NcoI-F	CTACCATGGACGAATTTGAAATGATAAAG
TyrRS-XhoI-R	GTACTCGAGTTATAATCTCTTTCTAATTG
tRNA-1-F	GTCGAAAGACTGGGCCTTTCGTCGACATCCCCCATCAAAAAAAT
tRNA-1-R	GATGGGGGATGCGGCCGCAAAAAAAATCCTTAGCTTTC
tRNA-2-F	TTGCGGCCGCATCCCCCATCATCCCCCATC
tRNA-2-R	GATGGGGGATGGCGCGCCAAAAAAAATCCTTAGCTTTC
tRNA-3-F	TTGGCGCGCCATCCCCCATCATCCCCCATC
tRNA-3-R	GGGCGTTTTATGGCGGGTCTGGTCGACCGCCGGCGAAAAAAAAT CCTTAGCTTTC
pKD-Cre-F	AAAACTGTCCATACCATGGACCTGCAGGGAGTCTGAGTCTGAGT CTCGCGCGCGGACACCATCGAATGGTGCAAAAC
pKD-Cre-R	AACAGACGAAGAATCCATGGCTAATCGCCATCTTCCAGCAG
C1-F	CTGTCCATACCATGGACCTGCAGGTTATCAAAAAGAGTATTGACA TA
tRNA-R	AGACTCAGACTCCCTGCAGGCACGGGCTTCTCAGGGCGTTT
At58-ispF-AscI-R	CATAGGCGCGCCTCATAGCGGTCTGCCTTGGTAGAC
At58-ispD-sbfI-F	CATACCTGCAGGAAGGAGATATACATGAAATTCGGCATCGTCATC
lox66Cm	GCAGCAAAACCCGCGGCCGCATAACTTCGTATAGCATACATTAT ACGAACGGTAAAGATCCCCTCACTCACTTCGCAGAATAAATAAA TC
lox71Cm	CTATACCAAGTTATGAAGCTAGCATAACTTCGTATAATGTATGCT ATACGAACGGTAAGAGCGCTTTTGAAGCTGCCTCAGGCATTTGA GAAGCACAC
pSLM-lox66-Kana	AAGCTTGAGCTCGCTAGCTTCATAACTTCGTATAGCATACATTAT ACGAACGGTAAAGATCCCCTCACGCTGCCG
pSLM-lox71-Kana	CCTGCAGACTAGTCTCGAGAATATCCTCCTTATAACTTCGTATAA TGTATGCTATACGAACGGTAAGAGCGCTTTTGAAGCTGGGGTG
lox2272Km-F	AAGCTTGAGCTCGCTAGCTTCATAACTTCGTATAAAGTATCCTAT ACGAAGTTATAAGATCCCCTCACGCTGCCG
lox2272Km-R	CCTGCAGACTAGTCTCGAGAATATCCTCCTTATAACTTCGTATAA AGTATCCTATACGAAGTTATAGAGCGCTTTTGAAGCTGGGGTG
Kam-F2	GACTAGGAGCATCAGGGGCTCGCGCC
Kam-R2	CTCCTAGTCCAGATCATCCTGATCGAC
kanaTAA-F	TTCTTGACGA GTTCTTCTAA
GalR- FC	CAACCTGAAGCCAAACGCCACCAGC
GalR-RC	ACCCGCGCCTTGCCGGAAGTGAAGG
PtsG-FC	CATATGTTTTGTCAAAATGTGCAAC

PtsG-RC	CCGCTACCAGGTGACGAAAAACTTC
Pgi-FC	CTCAACATTACGCTAACGGCAC
Pgi-RC	TTATCCTAAAACGCCATCGC
poxB-F1	TCAGATGAACTAAACTTGTTACCGTTATCACATTCAGGAGATGGA GAACCGCATGCCACAGCTAACACC
poxB-R1	CGTAAATCAATCATGGCATGTCCTTATTATGACGGGAAATGCCACC CTTTGACGGATCCCTGCAGACTA
GalR-F1	TTTTCCGTAACACTGAAAGAATGTAAGCGTTTACCCACTAAGGTA TTTTATTCCGGGGATCCGTCGACC
GalR-R1	GTCGCCAGACCATCGAAGAATTACTGGCGCTGGAATTGCTTTAAC TGCGGATGTAGGCTGGAGCTGCTTCG
ptsG-F1	CCCCCCTTGCCACGCGTGAGAACGTAAAAAAAGCACCCATACTC AGGAGCACTCTCAATTGCATGCCACAGCTAACACC
ptsG-R1	AGCCATCTGGCTGCCTTAGTCTCCCCAACGTCTTACGGATTAGTG GTTACGGATGTACTCGACGGATCCCTGCAGACTA
pgi-F1	TACAATCTTCCAAAGTCACAATTCTCAAAATCAGAAGAGTATTGC TAATGATTCCGGGGATCCGTCGACC
pgi-R1	GCCTTATCCGGCCTACATATCGACGATGATTAACCGCGCCACGCTT TATATGTAGGCTGGAGCTGCTTCG
p119F	TTGAATTCGGTACCAAGCTTGCATGCCACAGCTAACACCACG
TrrnB-R	CAGTCGAAAGACTGGGCCTTGCTAGCTTCATAACTTGGTATAG

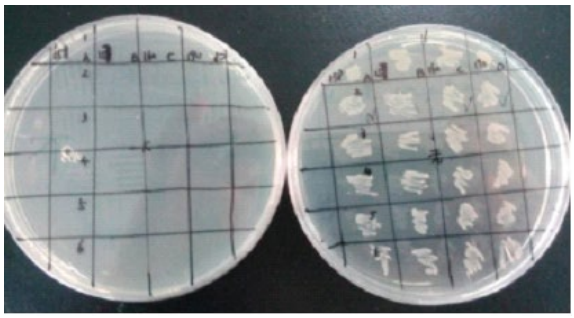


Figure S1. The BW25113 cells harboring pC1RT vector and either of the pSLM plasmids that contained mutated APH genes. Left: The plate contained Km. Right: The plate contained Km and 3-iodo-L-tyrosine (1mM).



Figure S2. The BW25113 cells contanied three plasmids including pLSM with APH 160 site mutation, pC1, pKD46 coated on plates containing Km, Cm, Ap, and 3-iodotyrosine.

Table S2. The sequence of cloning of plasmid pSLC and pSLK2272.

MCS1-Lox66:	GCGGCCGCGGTTGAATTCGGTACCAAGCTTGAGCTCGCTAGCTTCAT AACTTGGTATAGCATACATTATACGAACGGTA
Lox71-MCS2:	TACCGTTCGTATAGCATACATTATACGAAGTTATAAGGAGGATATTCT CGAGACTAGTCTGCAGGGATCCGTCGACGGTTGGCGCGCC
MCS1-Lox2272:	GCGGCCGCGGTTGAATTCGGTACCAAGCTTGAGCTCGCTAGCTTCAT AACTTCGTATAAAGTATCCTATACGAAGTTA
Lox2272-MCS2:	ATAACTTCGTATAAAGTATCCTATACGAAGTTATAAGGAGGATATTCT CGAGACTAGTCTGCAGGGATCCGTCGACGGTTGGCGCGCC

Table S3. The sequence of plasmid pSBC1A-CtR.

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