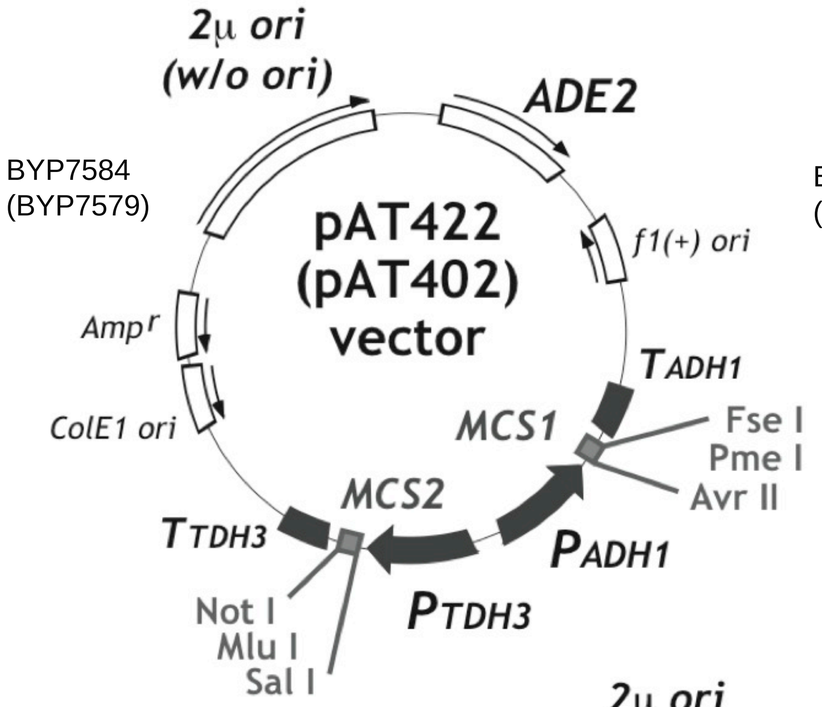
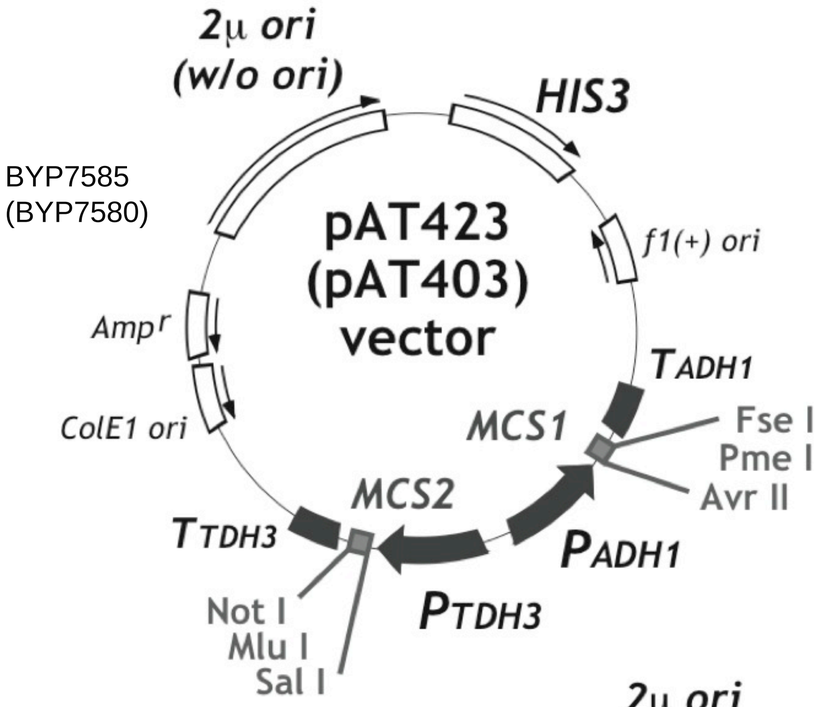
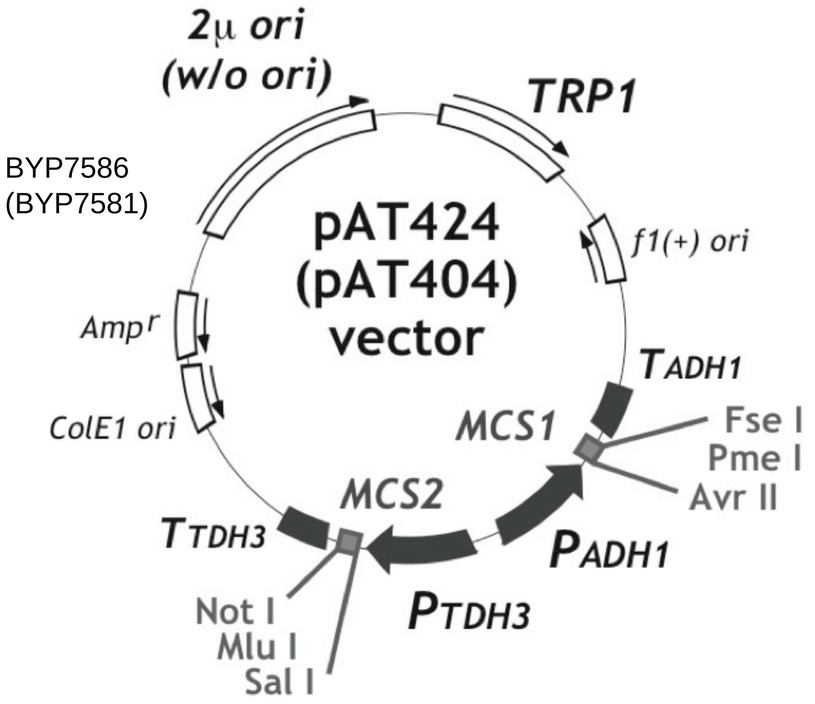
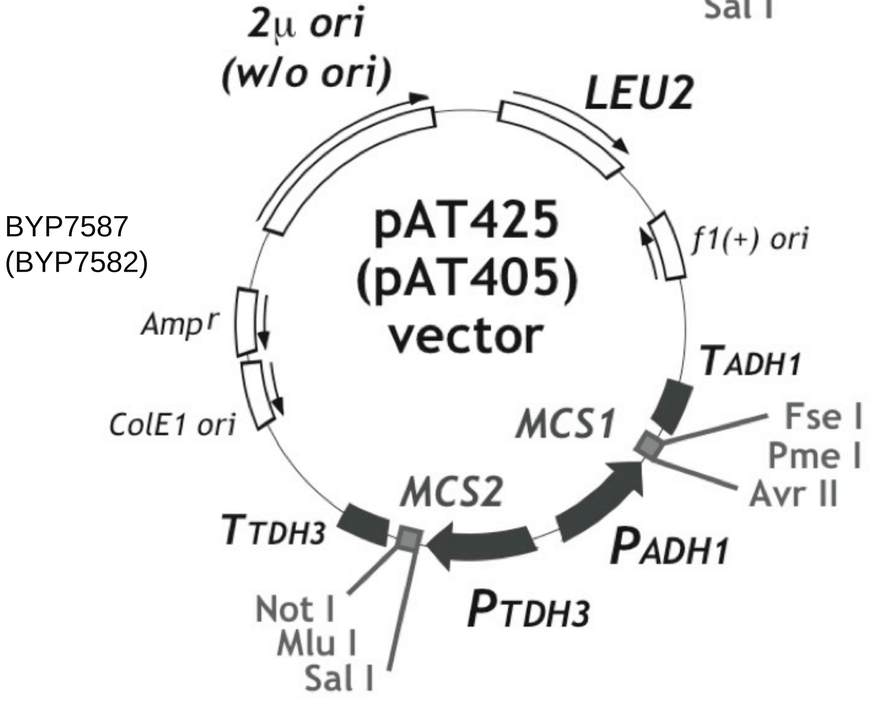
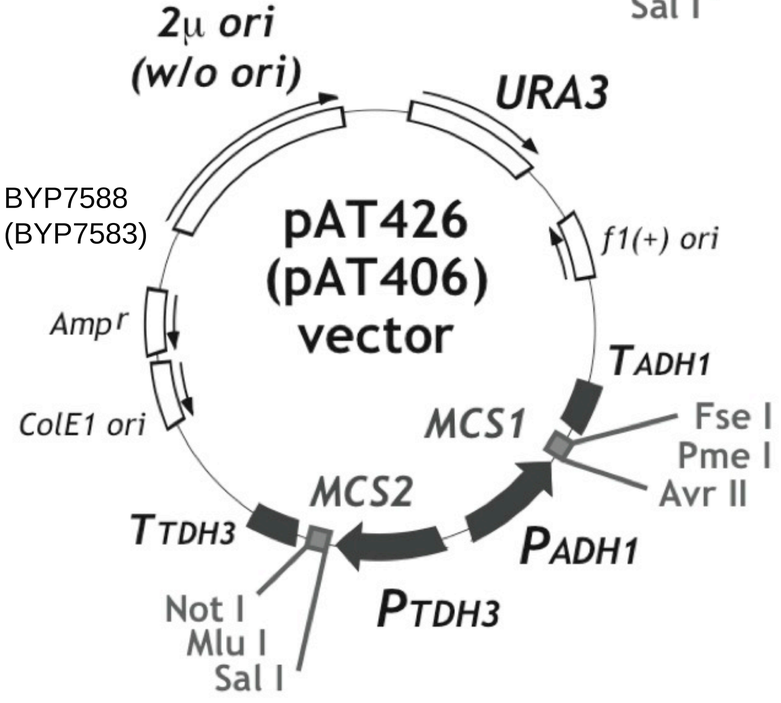

BYP7584
(BYP7579)
2μ ori
(w/o ori)
ADE2
pAT422
(pAT402)
vector
f1(+) ori
Amp^r
TADH1
ColE1 ori
MCS1
Fse I
Pme I
Avr II
MCS2
TTDH3
PADH1
Not I
Mlu I
Sal I
PTDH3


BYP7585
(BYP7580)
2μ ori
(w/o ori)
HIS3
pAT423
(pAT403)
vector
f1(+) ori
Amp^r
TADH1
ColE1 ori
MCS1
Fse I
Pme I
Avr II
MCS2
TTDH3
PADH1
Not I
Mlu I
Sal I
PTDH3


BYP7586
(BYP7581)
2μ ori
(w/o ori)
TRP1
pAT424
(pAT404)
vector
f1(+) ori
Amp^r
TADH1
ColE1 ori
MCS1
Fse I
Pme I
Avr II
MCS2
TTDH3
PADH1
Not I
Mlu I
Sal I
PTDH3


BYP7587
(BYP7582)
2μ ori
(w/o ori)
LEU2
pAT425
(pAT405)
vector
f1(+) ori
Amp^r
TADH1
ColE1 ori
MCS1
Fse I
Pme I
Avr II
MCS2
TTDH3
PADH1
Not I
Mlu I
Sal I
PTDH3


BYP7588
(BYP7583)
2μ ori
(w/o ori)
URA3
pAT426
(pAT406)
vector
f1(+) ori
Amp^r
TADH1
ColE1 ori
MCS1
Fse I
Pme I
Avr II
MCS2
TTDH3
PADH1
Not I
Mlu I
Sal I
PTDH3

```
LOCUS      pAT423               8675 bp ds-DNA    linear      11-JUL-2013
DEFINITION  .
ACCESSION
VERSION
SOURCE     .
  ORGANISM  .
COMMENT
COMMENT
COMMENT    ApEinfo:methylated:1
FEATURES             Location/Qualifiers
     CDS             complement(1887..1955)
                     /label=LacZ alpha
                     /ApEinfo_fwdcolor=#d9e1eb
                     /ApEinfo_revcolor=#d9e1eb
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     misc_binding      complement(4236..4258)
                     /label=LacO
                     /ApEinfo_fwdcolor=#dbe2eb
                     /ApEinfo_revcolor=#dbe2eb
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       complement(4210..4230)
                     /label=M13-rev
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       2026..2043
                     /label=M13-fwd
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       4273..4294
                     /label=Reading frame 173 rv
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=#00ff00
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       complement(4173..4192)
                     /label=T3
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       complement(4214..4235)
                     /label=M13-rv
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       2027..2042
                     /label=M13-fw
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind       2052..2072
                     /label=T7
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     rep_origin        complement(4598..5280)
```

```
                /label=ColE1 origin
                /ApEinfo_fwdcolor=#bfbfbf
                /ApEinfo_revcolor=#bfbfbf
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
rep_origin      complement(1559..1865)
                /label=F1 ori
                /ApEinfo_fwdcolor=#bfbfbf
                /ApEinfo_revcolor=#bfbfbf
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
rep_origin      complement(1427..1882)
                /label=M13 origin
                /ApEinfo_fwdcolor=#bfbfbf
                /ApEinfo_revcolor=#bfbfbf
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
CDS             complement(1887..1955)
                /label=lacZ alpha
                /ApEinfo_fwdcolor=#00a5d8
                /ApEinfo_revcolor=#00a5d8
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
misc_binding    complement(4236..4258)
                /label=lacO
                /ApEinfo_fwdcolor=#00a5d8
                /ApEinfo_revcolor=#00a5d8
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
CDS             complement(5378..6037)
                /label=AmpR
                /ApEinfo_fwdcolor=#808080
                /ApEinfo_revcolor=#808080
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
rep_origin      complement(4434..5374)
                /label=pUC origin
                /ApEinfo_fwdcolor=#bfbfbf
                /ApEinfo_revcolor=#bfbfbf
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
gene            187..1374
                /label=HIS3 marker (C639G)
                /ApEinfo_fwdcolor=#cceaf2
                /ApEinfo_revcolor=#cceaf2
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
CDS             505..1167
                /label=HIS3 ORF (C321G)
                /ApEinfo_fwdcolor=#aed3dd
                /ApEinfo_revcolor=#aed3dd
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
rep_origin      6372..8605
                /label=2 micron origin (long)
                /ApEinfo_fwdcolor=#f0bbcd
                /ApEinfo_revcolor=#f0bbcd
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
rep_origin      6929..8269
                /label=2 micron origin
                /ApEinfo_fwdcolor=#f0bbcd
                /ApEinfo_revcolor=#f0bbcd
                /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                width 5 offset 0
```

```
misc_recomb     complement(7889..7922)
               /label=FRT
               /ApEinfo_fwdcolor=orchid
               /ApEinfo_revcolor=pink
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     complement(1263..1303)
               /label=redHIS3-3 rv
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     complement(682..711)
               /label=redHIS3-2 rv
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
misc_feature    complement(1857..1874)
               /label=red-marker check rv
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=green
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     6210..6231
               /label=red-marker check fw
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     complement(1455..1474)
               /label=pRS-Marker_rv
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     81..100
               /label=pRS-Marker_fw
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     complement(4262..4281)
               /label=pRS-MCS_rv
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
primer_bind     1977..1996
               /label=pRS-MCS_fw
               /ApEinfo_fwdcolor=cyan
               /ApEinfo_revcolor=#00ff00
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
terminator      3849..4148
               /label=TDH3 terminator
               /ApEinfo_fwdcolor=#aba19a
               /ApEinfo_revcolor=#aba19a
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
               width 5 offset 0
terminator      complement(2101..2400)
               /label=ADH1 terminator
               /ApEinfo_fwdcolor=#aba19a
               /ApEinfo_revcolor=#aba19a
               /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
```

```
                     width 5 offset 0
     promoter         3129..3828
                     /label=TDH3 promoter
                     /ApEinfo_fwdcolor=#a9b6d1
                     /ApEinfo_revcolor=#a9b6d1
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     promoter         complement(2423..3122)
                     /label=ADH1 promoter
                     /ApEinfo_fwdcolor=#a9b6d1
                     /ApEinfo_revcolor=#a9b6d1
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind      complement(3949..3968)
                     /label=TDH3'_rv
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind      2181..2200
                     /label=ADH3'_rv
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind      complement(6336..6355)
                     /label=pBT3-100bp_fw
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind      3709..3728
                     /label=TDH5'_fw
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
     primer_bind      complement(2623..2642)
                     /label=ADH5'_fw
                     /ApEinfo_fwdcolor=cyan
                     /ApEinfo_revcolor=green
                     /ApEinfo_graphicformat=arrow_data {{0 1 2 0 0 -1} {} 0}
                     width 5 offset 0
ORIGIN
        1 tcgcgcgttt cggtgatgac ggtgaaaacc tctgacacat gcagctcccg gagacggtca
       61 cagcttgtct gtaagcggat gccgggagca gacaagcccg tcagggcgcg tcagcgggtg
      121 ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc
      181 accataaatt cccgttttaa gagcttggtg agcgctagga gtcactgcca ggtatcgttt
      241 gaacacggca ttagtcaggg aagtcataac acagtccttt cccgcaattt tctttttcta
      301 ttactcttgg cctcctctag tacactctat atttttttat gcctcggtaa tgattttcat
      361 tttttttttt ccacctagcg gatgactctt tttttttctt agcgattggc attatcacat
      421 aatgaattat acattatata aagtaatgtg atttcttcga agaatatact aaaaaatgag
      481 caggcaagat aaacgaaggc aaagatgaca gagcagaaag ccctagtaaa gcgtattaca
      541 aatgaaacca agattcagat tgcgatctct ttaaagggtg gtcccctagc gatagagcac
      601 tcgatcttcc cagaaaaaga ggcagaagca gtagcagaac aggccacaca atcgcaagtg
      661 attaacgtcc acacaggtat agggtttctg gaccatatga tacatgctct ggccaagcat
      721 tccggctggt cgctaatcgt tgagtgcatt ggtgacttac acatagacga ccatcacacc
      781 actgaagact gcgggattgc tctcggtcaa gcttttaaag aggcGctagg ggccgtgcgt
      841 ggagtaaaaa ggtttggatc aggatttgcg cctttggatg aggcactttc cagagcggtg
      901 gtagatcttt cgaacaggcc gtacgcagtt gtcgaacttg gtttgcaaag ggagaaagta
      961 ggagatctct cttgcgagat gatcccgcat tttcttgaaa gctttgcaga ggctagcaga
     1021 attaccctcc acgttgattg tctgcgaggc aagaatgatc atcaccgtag tgagagtgcg
     1081 ttcaaggctc ttgcggttgc cataagagaa gccacctcgc ccaatggtac caacgatgtt
     1141 ccctccacca aaggtgttct tatgtagtga caccgattat ttaaagctgc agcatacgat
     1201 atatatacat gtgtatatat gtatacctat gaatgtcagt aagtatgtat acgaacagta
```

1261 tgatactgaa gatgacaagg taatgcatca ttctatacgt gtcattctga acgaggcgcg
1321 ctttcctttt ttctttttgc tttttctttt tttttctctt gaactcgacg gatctatgcg
1381 gtgtgaaata ccgcacagat gcgtaaggag aaaataccgc atcaggaaat tgtaaacgtt
1441 aatattttgt taaaattcgc gttaaatttt tgttaaatca gctcattttt taaccaatag
1501 gccgaaatcg gcaaaatccc ttataaatca aaagaataga ccgagatagg gttgagtgtt
1561 gttccagttt ggaacaagag tccactatta aagaacgtgg actccaacgt caaagggcga
1621 aaaaccgtct atcagggcga tggcccacta cgtgaaccat caccctaatc aagttttttg
1681 gggtcgaggt gccgtaaagc actaaatcgg aaccctaaag ggagcccccg atttagagct
1741 tgacggggaa agccggcgaa cgtggcgaga aaggaaggga agaaagcgaa aggagcgggc
1801 gctagggcgc tggcaagtgt agcggtcacg ctgcgcgtaa ccaccacacc cgccgcgctt
1861 aatgcgccgc tacagggcgc gtcgcgccat tcgccattca ggctgcgcaa ctgttgggaa
1921 gggcgatcgg tgcgggcctc ttcgctatta cgccagctgg cgaaaggggg atgtgctgca
1981 aggcgattaa gttgggtaac gccagggttt tcccagtcac gacgttgtaa aacgacggcc
2041 agtgagcgcg cgtaatacga ctcactatag ggcgaattgg gtaccgggcc ccccCTCGAG
2101 ttgtcctctg aggacataaa atacacaccg agattcatca actcattgct ggagttagca
2161 tatctacaat tgggtgaaat ggggagcgat ttgcaggcat ttgctcggca tgccggtaga
2221 ggtgtggtca ataagagcga cctcatgcta tacctgagaa agcaacctga cctacaggaa
2281 agagttactc aagaataaga attttcgttt taaaacctaa gagtcacttt aaaatttgta
2341 tacacttatt ttttttataa cttatttaat aataaaaatc ataaatcata agaaattcgc
2401 GGCCGGCCGT TTAAACCCTA GGtgtatatg agatagttga ttgtatgctt ggtatagctt
2461 gaaatattgt gcagaaaaag aaacaaggaa gaaagggaac gagaacaatg acgaggaaac
2521 aaaagattaa taattgcagg tctatttata cttgatagca agacagcaaa ctttttttta
2581 tttcaaattc aagtaactgg aaggaaggcc gtataccgtt gctcattaga gagtagtgtg
2641 cgtgaatgaa ggaaggaaaa agtttcgtgt gcttcgagat acccctcatc agctctggaa
2701 caacgacatc tgttggtgct gtctttgtcg ttaatttttt cctttagtgt cttccatcat
2761 ttttttgtca ttgcggatat ggtgagacaa caacggggga gagagaaaag aaaaaaaaag
2821 aaaagaagtt gcatgcgcct attattactt caatagatgg caaatggaaa aagggtagtg
2881 aaacttcgat atgatgatgg ctatcaagtc tagggctaca gtattagttc gttatgtacc
2941 accatcaatg aggcagtgta attggtgtag tcttgtttag cccattatgt cttgtctggt
3001 atctgttcta ttgtatatct cccctccgcc acctacatgt tagggagacc aacgaaggta
3061 ttataggaat cccgatgtat gggtttggtt gccagaaaag aggaagtcca tattgtacac
3121 ccCCGCGGga ataaaaaaca cgctttttca gttcgagttt atcattatca atactgccat
3181 ttcaaagaat acgtaaataa ttaatagtag tgattttcct aactttattt agtcaaaaaa
3241 ttagcctttt aattctgctg taacccgtac atgcccaaaa tagggggcgg gttacacaga
3301 atatataaca tcgtaggtgt ctgggtgaac agtttattcc tggcatccac taaatataat
3361 ggagcccgct ttttaagctg gcatccagaa aaaaaaagaa tcccagcacc aaaatattgt
3421 tttcttcacc aaccatcagt tcataggtcc attctcttag cgcaactaca gagaacaggg
3481 gcacaaacag gcaaaaaacg ggcacaacct caatggagtg atgcaacctg cctggagtaa
3541 atgatgacac aaggcaattg acccacgcat gtatctatct cattttctta caccttctat
3601 taccttctgc tctctctgat ttggaaaaag ctgaaaaaaa aggttgaaac cagttccctg
3661 aaattattcc cctacttgac taataagtat ataaagacgg taggtattga ttgtaattct
3721 gtaaatctat ttcttaaact tcttaaattc tacttttata gttagtcttt tttttagttt
3781 taaaacacca agaacttagt ttcgaataaa cacacataaa caaacaaaGT CGACACGCGT
3841 GCGGCCGCgt gaatttactt taaatcttgc atttaaataa attttctttt tatagcttta
3901 tgacttagtt tcaatttata tactatttta atgacatttt cgattcattg attgaaagct
3961 ttgtgttttt tcttgatgcg ctattgcatt gttcttgtct ttttcgccac atgtaatatc
4021 tgtagtagat acctgataca ttgtggatgc tgagtgaaat tttagttaat aatggaggcg
4081 ctcttaataa ttttggggat attggctttt ttttttaaag tttacaaatg aatttttttcc
4141 gccaggatTT AATTAAGAGC TCcagctttt gttcccttta gtgagggtta attgcgcgct
4201 tggcgtaatc atggtcatag ctgtttcctg tgtgaaattg ttatccgctc acaattccac
4261 acaacatagg agccggaagc ataaagtgta aagcctgggg tgcctaatga gtgaggtaac
4321 tcacattaat tgcgttgcgc tcactgcccg ctttccagtc gggaaacctg tcgtgccagc
4381 tgcattaatg aatcggccaa cgcgcgggga gaggcggttt gcgtattggg cgctcttccg
4441 cttcctcgct cactgactcg ctgcgctcgg tcgttcggct gcggcgagcg gtatcagctc
4501 actcaaaggc ggtaatacgg ttatccacag aatcagggga taacgcagga aagaacatgt
4561 gagcaaaagg ccagcaaaag gccaggaacc gtaaaaaggc cgcgttgctg gcgtttttcc
4621 ataggctccg cccccctgac gagcatcaca aaaatcgacg ctcaagtcag aggtggcgaa
4681 acccgacagg actataaaga taccaggcgt ttccccctgg aagctccctc gtgcgctctc
4741 ctgttccgac cctgccgctt accggatacc tgtccgcctt tctcccttcg ggaagcgtgg
4801 cgctttctca tagctcacgc tgtaggtatc tcagttcggt gtaggtcgtt cgctccaagc
4861 tgggctgtgt gcacgaaccc cccgttcagc ccgaccgctg cgccttatcc ggtaactatc
4921 gtcttgagtc caacccggta agacacgact tatcgccact ggcagcagcc actggtaaca
4981 ggattagcag agcgaggtat gtaggcggtg ctacagagtt cttgaagtgg tggcctaact
5041 acggctacac tagaaggaca gtatttggta tctgcgctct gctgaagcca gttaccttcg
5101 gaaaaagagt tggtagctct tgatccggca aacaaaccac cgctggtagc ggtggttttt

```
5161 ttgtttgcaa gcagcagatt acgcgcagaa aaaaaggatc tcaagaagat cctttgatct
5221 tttctacggg gtctgacgct cagtggaacg aaaactcacg ttaagggatt ttggtcatga
5281 gattatcaaa aaggatcttc acctagatcc ttttaaatta aaaatgaagt tttaaatcaa
5341 tctaaagtat atatgagtaa acttggtctg acagttacca atgcttaatc agtgaggcac
5401 ctatctcagc gatctgtcta tttcgttcat ccatagttgc ctgactcccc gtcgtgtaga
5461 taactacgat acgggagggc ttaccatctg gccccagtgc tgcaatgata ccgcgagacc
5521 cacgctcacc ggctccagat ttatcagcaa taaaccagcc agccggaagg gccgagcgca
5581 gaagtggtcc tgcaacttta tccgcctcca tccagtctat taattgttgc cgggaagcta
5641 gagtaagtag ttcgccagtt aatagtttgc gcaacgttgt tgccattgct acaggcatcg
5701 tggtgtcacg ctcgtcgttt ggtatggctt cattcagctc cggttcccaa cgatcaaggc
5761 gagttacatg atcccccatg ttgtgcaaaa aagcggttag ctccttcggt cctccgatcg
5821 ttgtcagaag taagttggcc gcagtgttat cactcatggt tatggcagca ctgcataatt
5881 ctcttactgt catgccatcc gtaagatgct tttctgtgac tggtgagtac tcaaccaagt
5941 cattctgaga atagtgtatg cggcgaccga gttgctcttg cccggcgtca atacgggata
6001 ataccgcgcc acatagcaga actttaaaag tgctcatcat tggaaaacgt tcttcggggc
6061 gaaaactctc aaggatctta ccgctgttga gatccagttc gatgtaaccc actcgtgcac
6121 ccaactgatc ttcagcatct tttactttca ccagcgtttc tgggtgagca aaaacaggaa
6181 ggcaaaatgc cgcaaaaaag ggaataaggg cgacacggaa atgttgaata ctcatactct
6241 tcctttttca atattattga agcatttatc agggttattg tctcatgagc ggatacatat
6301 ttgaatgtat ttagaaaaat aaacaaatag ggttccgcg cacatttccc cgaaaagtgc
6361 cacctgacgt ccacggacta tagactatac tagtatactc cgtctactgt acgatacact
6421 tccgctcagg tccttgtcct ttaacgaggc cttaccactc ttttgttact ctattgatcc
6481 agctcagcaa aggcagtgtg atctaagatt ctatcttcgc gatgtagtaa aactagctag
6541 accgagaaag agactagaaa tgcaaaaggc acttctacaa tggctgccat cattattatc
6601 cgatgtgacg ctgcagcttc tcaatgatat tcgaatacgc tttgaggaga tacagcctaa
6661 tatccgacaa actgttttac agatttacga tcgtacttgt tacccatcat tgaattttga
6721 acatccgaac ctgggagttt tccctgaaac agatagtata tttgaacctg tataataata
6781 tatagtctag cgctttacgg aagacaatgt atgtatttcg gttcctggag aaactattgc
6841 atctattgca taggtaatct tgcacgtcgc atccccggtt cattttctgc gtttccatct
6901 tgcacttcaa tagcatatct ttgttaacga agcatctgtg cttcattttg tagaacaaaa
6961 atgcaacgcg agagcgctaa tttttcaaac aaagaatctg agctgcattt ttacagaaca
7021 gaaatgcaac gcgaaagcgc tattttacca acgaagaatc tgtgcttcat ttttgtaaaa
7081 caaaaatgca acgcgagagc gctaattttt caaacaaaga atctgagctg catttttaca
7141 gaacagaaat gcaacgcgag agcgctattt taccaacaaa gaatctatac ttctttttg
7201 ttctacaaaa atgcatcccg agagcgctat ttttctaaca aagcatctta gattactttt
7261 tttctccttt gtgcgctcta taatgcagtc tcttgataac tttttgcact gtaggtccgt
7321 taaggttaga agaaggctac tttggtgtct attttctctt ccataaaaaa agcctgactc
7381 cacttcccgc gtttactgat tactagcgaa gctgcgggtg catttttca agataaaggc
7441 atccccgatt atattctata ccgatgtgga ttgcgcatac tttgtgaaca gaaagtgata
7501 gcgttgatga ttcttcattg gtcagaaaat tatgaacggt ttcttctatt ttgtctctat
7561 atactacgta taggaaatgt ttacattttc gtattgtttt cgattcactc tatgaatagt
7621 tcttactaca atttttttgt ctaaagagta atactagaga taaacataaa aaatgtagag
7681 gtcgagttta gatgcaagtt caaggagcga aaggtggatg ggtaggttat atagggatat
7741 agcacagaga tatatagcaa agagatactt ttgagcaatg tttgtggaag cggtattcgc
7801 aatattttag tagctcgtta cagtccggtg cgtttttggt tttttgaaag tgcgtcttca
7861 gagcgctttt ggttttcaaa agcgctctga agttcctata ctttctagag aataggaact
7921 tcggaatagg aacttcaaag cgtttccgaa aacgagcgct tccgaaaatg caacgcgagc
7981 tgcgcacata cagctcactg ttcacgtcgc acctatatct gcgtgttgcc tgtatatata
8041 tatacatgag aagaacggca tagtgcgtgt ttatgcttaa atgcgtactt atatgcgtct
8101 atttatgtag gatgaaaggt agtctagtac ctcctgtgat attatcccat tccatgcggg
8161 gtatcgtatg cttccttcag cactaccctt tagctgttct atatgctgcc actcctcaat
8221 tggattagtc tcatccttca atgctatcat ttcctttgat attggatcat atgcatagta
8281 ccgagaaact agtgcgaagt agtgatcagg tattgctgtt atctgatgag tatacgttgt
8341 cctggccacg gcagaagcac gcttatcgct ccaatttccc acaacattag tcaactccgt
8401 taggcccttc attgaaagaa atgaggtcat caaatgtctt ccaatgtgag attttgggcc
8461 atttttata gcaaagattg aataaggcgc atttttcttc aaagctttat tgtacgatct
8521 gactaagtta tcttttaata attggtattc ctgtttattg cttgaagaat tgccggtcct
8581 atttactcgt tttaggactg gttcagacgt ctaagaaacc attattatca tgacattaac
8641 ctataaaaat aggcgtatca cgaggccctt tcgtc
```

//