Рис. 5. Классическая аттенюаторная регуляция генов *pheA* и *pheS* у γ-протеобактерий. Обозначения такие же, как на рисунке 4.

pheA:

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EcE         ***AUGAAACACAUACCGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**AUGGGAGGCGUUUCGUCGUGUGAAACAGAAUGCGAA********GACGAACAAUAAGGCCUCCCAAA**UCGGGGGGCCUUUUUUA
ECA         ***AUGAUAAAUAAACCGUUUUUCUUCGUAUUCUUUUUUACCUUCCCCUGA*UUUGGGAGGCGAUUCGUCGUAAGAGAA*GAAUACGAA********GACGAACAAAAAAGCCUCCUGACA***AGGAGGCUUUUUUUA
KPN         ***AUGAAACUUGUCCCGUUUUUUUUUGCAUUUUUUUUUACCUUUCCCUGA**CCGGGAGGCAAUUCGUCGUAUAAGAAAGAAUGCGAA********GACGAACAAUAAGGCCUCCCAC***CCGGGAGGCCUUUUUUA
SbBS        ***AUGAAACACACACCGUUUUUCUUCGCAUUCUUUUUUACCUUUCCCCUGA**AUGGGAGGCGUUUCGUCGUGUGAAACAGAAUGCGAA********GACGAACAAUAAGGCCUCCCAAA**CCGGGGGGCCUUUUUUA
SFV         ***AUGAAACACAUACCGUUUUUCUUCGCAUUUUUUUUUACCUUCCCCUGA**AUGGGAGGCGUUUCGUCGUGUGAAACAGAAUGCGAAG********ACGAACAAUAAGGCCUCCCAAA**UCGGGGGGCCUUUUUUA
SSON        ***AUGAAACACACACCGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**AUGGGAGGCGUUUCGUCGUGUGAAACAGAAUGCGAA********GACGAACAAUAAGGCCUCCCAAA**CCGGGGGGCCUUUUUUA
SDY         ***AUGAAACACACACCGUUUUUCUUCGCAUUCUUUUUUACCAUUCCCCUG*AAUGGGAGGCGUUUCGUCGUGUGAACAGAAUGCGAA********GACGAACAAUAAGGCCUCCCAAA**UCGGGGGGCCUUUUUUA
Ent         ***AUGAAAUAUACCCCGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAACAAGGCCUCCCAAA**CCGGGAGGCCUUUUUU*
ESA         ***AUGAAGCAACACGCGUUUUUCUUCGCUUUCUUUUUUACCUUCCCCUGA**ACGGGAGGCGUGUCGUCGUACAG*AAAGCAAGCGAA********GACGAACUAACAGGCCUCCCACU**CCGGGGGGCCUUUUUUA
STY         ***AUGAAGCUAACCCGGUUUUUCUUCGCAUUCUUUUUUAUCUUCCCCUGA**CCGGGAGGCGUUUCGUCAUGUGAUAAAGAAUGCGAA********GACGAACAAGAAGGCCUCCCCCA**CCGGGAGGCCUUUUUUA
t           ***AUGAAGCUCACCCGGUUUUUCUUCGCAUUCUUUUUUAUCUUCCCCUGA**CCGGGAGGCGUUUCGUCAUGUGAUAAAGAAUGCGAA********GACGAACAAGAAGGCCUCCCCCA**CCGGGAGGCCUUUUUUA
STM         ***AUGAAGCUCACCCGGUUUUUCUUCGCAUUCUUUUUUAUCUUCCCCUGA**CCGGGAGGCGUUUCGUCAUGUGAUAAAGAAUGCGAA********GACGAACAAGAAGGCCUCCCCCA**CCGGGAGGCCUUUUUUA
Spro        ***AUGCUCCGUAAACCGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAGCAAAGCCUCCCUGAA*AUCAGGGGGCUUUUUUUA
YE          ***AUGAUUAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAACAAAGCCUCCCAA***GCGGGAGGCUUUUUUUA
YintA       ***AUGAUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAACAAAGCCUCCCAA***GCGGGAGGCUUUUUUUA
YfreA       ***AUGAUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAAUAAAGCCUCCCAG***ACGGGAGGCUUUUUUUA
YberA       ***AUGAUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAAUAAAGCCUCCCCA***GCGGGAGGUUUUUUUUU
YmolA       ***AUGAUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAAUAAAGCCUCCCAA***GCGGGAGGCUUUUUUUA
YpAngola    ***AUGAUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAAUAAAGCCUCCCAA***GCGGGAGGCUUUUUUUA
Yps         GUGAUUCUCAAUAAAGUGUUUUUCUUCGCAUUCUUUUUUACCUUCCCCUAA**UUGGGAGGCGUUUCGUCGUGUGAUAAAGAAUGCGAA********GACGAACAAGAAAGCCUCCCAA***GCGGGAGGCUUUUUUUA
SG          ***AUGACAACACCGUCGUUUUUCUUCGCUUUCUUUUUUAACUUCCGUUGCUAAGAGGCCCGCGCUCGUCGUGUGAGAAAUAAAGCGAA********GACGAACCGCAAAGCCUCCUGA**AACAGGGGGCUUUUUUUG
P3TCK       ***AUGACAAUACGCCUGUUUUUCUUUAGCUUUCUUUUUUAUGUCACCCUAG****UGGAGGCGAUUCGUUACGCAAAAAAUAAGCUAAA*********GACGAAUAGACAGCCUCCUCUGACCAAGGAGGCUUUUUUUGU
VV1         AUGACACCUCAUUUUCUGUACUUUUUUGACUUCUUUUUUUCUCCAAUAAUG***UUUGGAGGCUCGCUCGUUGUUCAAAGACAAGUCAAA*********AACGAACAGAAAGCCUCCUCUU***AAGGGGGCUUUUUUUA
Ypar        AUGCACUUAACCUCACUGUUUAUUUUUGACUUCUUUUUUUCUUCCAUAG******UUGGAGGGGCUAACUCGUUUGUGAAAGAAAAGUCA********AAAACAAACAGAAAGCCUCCCCAC**UCGGGAGGCUUUUUUUA
VC          AUGACACCUCAUUUCCUGUACUUUUUUGACUUCUUUUUUUCUCCAAUAAUG***UUUGGAGGCUCGCUCGUUGUUCAAAGACAAGUCAAA*********AACGAACAGAAAGCCUCCUCU***CAAGGGGGCUUUUUUUA
VIBHAR      AUGCAUUCAACAAACCUGUUUCUUUUUGACUUCUUUUUUCCUUCCAUAG******UUGGAGGGGCUAACUCGUUUGUGAAAGAAAAGUCA********AAAACAAACAGAAAGCCUCCCACA**UCGGGGGCUUUUUUUA
MED222      AUGCAUUUAACCUCACUGUUUAUUUUUGACUUCUUUUUUCCUCCCAUAG******UCGGAGGGGCGAACUCGUUUGUGAAAGAAAAGUCA********AAAACAAACAGAAAGCCUCCCAAA**UCGGGAGGCUUUUUUAU
V12G01      AUGCAUUUAACCUCACUGUUUAUUUUUGACUUCUUUUUUCCUCCCAUAG******UUGGAGGGGCGAACUCGUUUGUGAAAGAAAAGUCA********AAAACAAACAGAAAGCCUCCCAAA**UCGGGAGGCUUUUUUAU
V12B01      AUGCACACUCAAUCUUUGUUUAUUUUUGACUUCUUUUUUCUUCCGUAAA*****AUCGGAGGCUGAGUCGUUUUAGAAAAACAAGUCAAA*********AACGAACAAGAAGCCUCCCACA*CUAGGGAGGCUUUUUUAU
VSAK1       AUGUACCCGAUUAAUCUGUUCUUUUUUGACUUCUUUUUUCUCCACUAG****GCUUGGAGGCUUCUUCGUUUUCGAAAGAAAAGUCAAA*********AACGAACGGAAAGCCUCCCAAU****GGGAGGUUUUUUUAU
VSWAT       AUGCAAACUCAAUCUUUGUUUAUUUUUGACUUCUUUUUUCUUCCGUAAA*******AUCGGAGGCUAAGUCGUUUUAGAAAAACAAGUCA********AAAACGAACAAGAAGCCUCCCACA*CUAGGGAGGCUUUUUUAU
Swoo        AUGAAACAACUUAACGUUCACUUUUUUUACUUUCUUUUUUUAUUCCCCCCC**AUACAGGGAGGCGGAAUUUCGGUGUAAAACGAAAGUGA************AAAUUCCAAAGCCUCCCAC***UAGGGGGCUUUUUUGU
Ssed        AUGACAUUAUAUAACGUUCACUUUUUUUACUUUCUUUUUUUAUUCCACCC**AUCUCGGGAGGCGGAGUUUCGGUGUAAAACGAAAGUGA************AAAUUCCAAAGCCUCCCAC***UAGGGAGGCUUUUUUGU
SO          AUGAAAACAAAUACCCUAGCGUUUUUUUACUUUCUUUUUUUACACCCCCC***ACUCUAGGAGGCGGAUUUACUGUGUAAAAACGAAAGUAA************AAAUCCAAAGCCUCCCACA*****UGGGAGGCUUUUUCGU
Shewmr      AUGAAAACAAAUACCGCAGCUUUUUUUUACUUUCUUUUUUUACACCCCCC***ACUCUAGGAGGCGGAUUUACUGUGUAAAAACGAAAGUAA************AAAUCCAAAGCCUCCCA*****CUGGGAGGCUUUUUCGU
Sden        AUGAAGACGACAUCAUUUUUUUACUUUCUCACAGUUUUUUUAUUCGGCC***UACCUAGGAGGCGGUUUUUCUGUGUGAAAGCAAAAUGAA************AAUACCUAAGCCUCCCA*****CUGGAGGCUUUUUUAU
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Shew        ******AUGAACACCCAAGCUUUUUUUACUUUCUUUUUUUAUUCCACCCUUUC***UAGGGAGGCGGAAUUUCGGUGUAAAAACGAAAGUA**********AAAAUUCCAAGGCCUCCCAU**UAUGGGGGGCUUUUUUAU
Sama        AUGAAAUUUACCGUGAAUGCAGUUUUUUACUUUCUUUUUUUAUUCAC***UUUCCCCUGAGGAGGCGGAUUUUCUGUGUAAAAACGAAAGU**********GAAAAUUCAAAGCCUCCCAC*CACCGGGAGGCUUUUUUGU
Spea        AUGAACAAAAUCCAUACUGUAUUUUUUUACUUUCUUUUUUUAUGUCC***CCCACCCUCGGAGGCGGAACUUUGGUGUAAAACGAAAGU**********AAAAAUUCCAAAGCCUCCCAC***AUGGGAGGCUUUUUUAU
Sfri        AUGAACAAAAAAAUAUUUCAGCCUUUUUUAUUUUUCUUUUUUUAUUUCAG***CCCACCCCUGGAGGCGGAUUUUCUGUGUAAAACGAAAAU**********GAAAAUUCUAAAGCCUCCCAA***CUGGGAGGCUUUUUUGU
Sbal        ******AUGAUAACAGCAGCUUUUUUUACUUUCUUUUUUUACACCC***CCCACUCUAGGAGGCGGAUUUACUGUGUAAAACGAAAGU**********AAAAAUCCAAAGCCUCCCAA***CUGGGAGGCUUUUUUGU
Sput        *********AUGACAGCAACUUUUUUUACUUUCUUUUUUUACACCC****CCACUCUAGGAGGCGGAUUUACUGUGUAAAAACGAAAGU**********AAAAAUCCAAAGCCUCCCAA***AUGGGAGGCUUUUUUGU
MADE        AUGAAACAGAAUAUAAAGCACGUAGCCAUUUUUCUUUUUUUGCGUUUACAUCCUUUUAUUAGGAGGCGCAGCUACAUGCAU**************************GAAAACCUCCCAC***CCGGGAGGUUUUUUUUU
PTD2        AUGAAACAAAAUCACCGUAUUUACUUUUUUUAGCUUUUUUUAUGGACCACCUAAAUUUGGGAGGCGAUUCCGUCACGGCAUAAAAAAGUC**********AAAACGAAUUCAAGCCUCCCAA***CCGGGAGGCUUUUUUUU
PSHA        AUGAACAUUACUUACGCAGUUACUUUUUUUUCGUUUUUUUAGCUUCUUUAUAUAGAAGAGGCUGAACUGUUUGUGAGAUAAAAUCAAUC**************GAAUAGCAAAGCCUCCCAA***CCGGGAGGCUUUUUUGU
AHA         ******AUGCACGCACCAUUCUUUUUUUGCUUUCUCGUUUAUCCGGCCCUCAUGAGGGAAGGCCCGUCGUCACGUGAAGCACUCGCGUAAACAGAAAGCAAAGACGAAUCGAGCCUCCCCC***UAGCGGAGGUUUUUUUUU
ASA         ******AUGCACGCACCAUUCUUCUUUGCUUUCUCGUUUAUCCGGCCCACAUGAGGGAAGGCCCUGUCGUCGCGUG*AACAGCAACCAAA**********GACGAAUCGAGCCUCCCC***UAGUGGAGGCUUUUUUUUU
CKO         ***AUGAAACUUAUCCCGUUCUUCUUCGCAUUCUUUUUUACCUUCCCCUGA**AUGGGAGGCGUUUCGUCGUGUGAAAAAGAGACGCGCAAUCUUCAGGCCAGUUUCCACAUCAAACGAGCCAUCCAUAUGAGGAUCGUU
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pheS:

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EcE         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUUACUUUAGCACCUGAAUCCAGGAGGCUAGCGCGUGAGAAG*AGAAACGGAAAACAGCGCCUGAAAGCCUCCCA**GUGGAGGCUUUUUUUGUAUGCGCGUUUUGAAA
KPN         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGAACUCAGGGGGCUUGCGCGUGAAAGA*AGAAACGGAAAACAGCGCCAGAAAGCCUCCCCU*GUGGAGGCUUUUUUCGUAUAUGGAUUCGGAAU
YpAngola    ***AUGCAUACAGUUAUUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUACAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAGCGCC**GAAGCCUCCCAUCGUGGAGGCUUUUUUUGUUUUUUACUUUACGGCA
YE          ***AUGCAUGCAGUUACUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUUCAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAGCGCC**UAAGCCUCCCAUCGUGGAGGCUUUUUUGUUUUUGCUCUACAGCAU
YintA       AUGAUACAUGCAGUUACUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUUCAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAGCGCC**UAAGCCUCCCAUCGUGGAGGCUUUUUUGUUUUUACUCUACGGCAC
YfreA       ***AUGCAUGCCGUUACUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUUCAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAGCGCC**UAAGCCUCCCAUCGUGGAGGCUUUUUUGUUUUGUAUUUCAGGGGCC
YberA       ***AUGUAUACCGUUACUUUUCGCUUCUCUUUUUACUUUAGCGCCUGAUUUCAGGAGGCUGGUGCGUAAGAAU*UGAAACGAAAAAUAACGCC**AAAGCCUCCCAUCGUGGAGGCUUUUUUGUUUGUGCUCCAAGGUAU
YmolA       ***AUGCAUACCGUUACUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUUCAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAACGCC**AAAGCCUCCCAUCGUGGAGGCUUUUUUAUUUUUUACUCUACAGCA
Yps         ***AUGCAUACAGUUAUUUUUCGCUUCUUUUUUUACUUUAGCGCCUGAUUACAGGAGGCUUGCGCGUAAGAAU*AGAAACGAAAAAUAGCGCC**GAAGCCUCCCAUCGUGGAGGCUUUUUUGUUUUUUACUUUACGGCA
plu         ***AUGUCUUUAGCUUUUUUUCGCAUCUUUUUUUACUUUAGCACCUGAAUUCAGGGGGCUUUGCGCGUAAGAAAAGAAACGAAAAGUAGCGC**CUGAGCCUCCGUU*GUGGAGGCUUUUUUGUUUUUAUGACAGUAAGG
ECA         ***AUGAACGCUGCUAUUUUUCCGUUUCUUUUUUUACUUUAGCGCCUGAACUCAGGGGGCUUUGCGCGUAAGAAAAGAAACGAAAAGUAGCGC**UUAAGCCUCCCUC*AGGGGAGGCUUUUUUGUUUAUAAUUAUCGGUUU
t1219       ***AUGAACGCUGCUAUUUUUCCGUUUCUUUUUUUACUUUAGCACCUGAUCCCAGGAGGCUAGCGCGUGAAAAA*CGAAACGAAAAACAGCGUAAAAAAGCCUCCCUGA**UGGAGGCUUUUUUUGUAUCUGAAAUCGAGAG
STY         ***AUGAACGCUGCUAUUUUUCCGUUUCUUUUUUUACUUUAGCACCUGAUCCCAGGAGGCUAGCGCGUGAAAAA*CGAAACGAAAAACAGCGUAAAAAAGCCUCCCUGA**UGGAGGCUUUUUUUGUAUCUGAAAUCGAGAG
STM         ***AUGAACGCUGCUAUUUUUCCGUUUCUUUUUUUACUUUAGCACCUGAUCCCAGGAGGCUAGCGCGUGAAAAA*CGAAACGAAAAACAGCGCAAAAAAGCCUCCCUGA**UGGAGGCUUUUUUUGUAUCUGAAAUCGAGAG
CKO         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGACUCCAGGAGGCUAGCGCGUGAAAGA*AGAAACGAAAAACAGCGCGAAAAAGCCUCCCUGA**UGGAGGCUUUUUUUGUAUCCUGAAAUCGAGAG
SbBS512     ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGAAUCCAGGAGGCUAGCGCGUGAGAAG*AGAAACGGAAAACAGCGCCUGAAAGCCUCCCAG**UGGAGGCUUUUUUUGUAUGCGCGUUUUGAAA
SFV         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGAAUCCAGGAGGCUAGCGCGUGAGAAG*AGAAACGGAAAACAGCGCCUGAAAGCCUCCCAG**UGGAGGCUUUUUUUGUAUGCGCGUUUUGAAA
SSON        ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGAAUCCAGGAGGCUAGCGCGUGAGAAG*AGAAACGGAAAACAGCGCCUGAAAGCCUCCCAG**UGGAGGCUUUUUUUGUAUGCGCGUUUUGAAA
SDY         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUUUUUUACUUUAGCACCUGAAUCCAGGAGGCUAGCGCGUGAGAAG*AGAAACGGAAAACAGCGCCUGAAAGCCUCCCAG**UGGAGGCUUUUUUUGUAUGCGCGUUUUGAAA
Ent         ***AUGAAUGCUGCUAUUUUUCCGCUUCUUCUUUUACUUUAGCACCUGAGUUCAGGAGGCUAGCGCGCAUGAAAGA*UGAAACGAAAAACAGCGCCAGAAAGCCUCCCUGA**UGGAGGCUUUUUUUUGUUUUCUACUGCUGAUGA
ESA         ***AUGAACGCUGCCAUUUUUCCGCUUCUUUUUUUACUUUAGCGCCUGAAUCAGAGGGGCUUUGCGCGUAAGAAAAGAAACGGAAAAUCAACGCCAGAAGCCUCCCAUC**AGGAGGCUUUUUUUUAUAUCUGCCGUUUUUGG
Spro        ***AUGAACUCUGUUAUUUUUUCGUUUCUUUUUUUACUUUAGCGCCUGAUCUCAGGAGGCUUUGCGCGUAAGAGAAGAAACGAAAAGUAGCGC**CUAAGCCUCCCCU*GUGGAGGCUUUUUUGUUUUUGGCCAUCUCCAG
SG          ***AUGAAUGCUACUAUUUUUCCGUUUCUUUUUUUACUUUAGCACCUGUAUCCCGGGGGGCUUGCGCGUAAGUCAAGAAACGAAAAAUAGCGC***UAAAGCCUCCCGGAGUGGAGGCUUUUUUUAUUGCUGAUAAGCGGGGU
PCNPT3      **************AUGUUUUUUUCUCUUUUUUUAUGUAAUGUUU**********************************************GCAAAAAAAUAGCAAGCAUUUUUCUUUGCUAUUUUUUCGUCCAAACUGCAACAGU
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