

(GA)₃GFDGA-myc9 DNA sequence:

ATCGATGGAGCTGGAGCAGGTGCGGGATTTCGATGGAGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACT
TATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAG
ATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAA
CAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCT
TGAAGAAGACCTTGGTGCTATCAAGTGAAGCTT

(GA)₃GFDGA -myc9 peptide sequence:

GAGAGAGFDGAEQKLISEEDLGAEQKLISEEDLGAEQKLISEEDLGAEQKLISEEDLGAEQKLISEEDLGAEQKLISEEDLGAEQK
LISEEDLGAEQKLISEEDLGAEQKLISEEDLGAIK*

MW of this 121 aa peptide = 12,912

Blue nucleotide sequence indicates optimal forward PCR primer

Red indicates vector sequences (*BspDI* and *HindIII*)

myc tag sequence = 10aa E Q K L I S E E D L

Primer pairs for cassette amplification and gene tagging:

(GA)₃GFDGA -myc9-5R: (use this reverse complement as marker tail for the 5' flank fusion primer):

5' CGC ACC TGC TCC AGC TCC 3'

Pair this primer with each of the following selectable marker tails:

3' *pyroA*:

5' GGT TCA TTC TTG TTA GGG TGT TCT GTG C 3'

3' *pyrG*:

5' CAT CAC GCA TCA GTG CCT CCT CTC AGA C 3'

3' *riboB*:

5' CGT CAC ACT CAT GTA ACG GTT CTG C 3'

Sequence: 17-9-T7 GA5-myc9 9-22-11 Range: 1 to 378

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          10          20          30          40          50
ATCGATGGAGCTGGAGCAGGTGCGGGATTTCGATGGAGCTGAACAGAACT
TAGCTACCTCGACCTCGTCCACGCCCTAAGCTACCTCGACTTGTCTTTGA
  I  D  G  A  G  A  G  A  G  F  D  G  A  E  Q  K  L

          60          70          80          90          100
TATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAG
ATAAAGACTTCTTCTAGAACCACGACTTGTCTTTGAATAAAGACTTCTTC
  I  S  E  E  D  L  G  A  E  Q  K  L  I  S  E  E
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      110      120      130      140      150
ATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAA
TAGAACCACGACTTGTCTTTGAATAAAAGACTTCTTCTAGAACCACGACTT
D L G A E Q K L I S E E D L G A E

      160      170      180      190      200
CAGAAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCT
GTCTTTGAATAAAAGACTTCTTCTAGAACCACGACTTGTCTTTGAATAAAG
Q K L I S E E D L G A E Q K L I S

      210      220      230      240      250
TGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGAAGATCTTG
ACTTCTTCTAGAACCACGACTTGTCTTTGAATAAAGACTTCTTCTAGAAC
E E D L G A E Q K L I S E E D L

      260      270      280      290      300
GTGCTGAACAGAACTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAAA
CACGACTTGTCTTTGAATAAAAGACTTCTTCTAGAACCACGACTTGTCTTT
G A E Q K L I S E E D L G A E Q K

      310      320      330      340      350
CTTATTTCTGAAGAAGATCTTGGTGCTGAACAGAACTTATTTCTGAAGA
GAATAAAGACTTCTTCTAGAACCACGACTTGTCTTTGAATAAAGACTTCT
L I S E E D L G A E Q K L I S E E

      360      370
AGACCTTGGTGCTATCAAGTGA AAGCTT
TCTGGAACCACGATAGTTCACTTTCGAA
D L G A I K * K L

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Figure S5 (GA)₃GFDGA -myc9 universal tagging cassettes