

* 20 * 40 * 60 * 80 * 100
 FLO1-YH1A : ATGACAATGCCTCATCGCTATATGTTTTGGCAGTCCTTACACTCTGGCACTAACTAGTGGCTCAGGAGCCACAGAGGGCTGCTTACCAGCAGGCC : 100
 FLO1-YL1C : ATGCAAAATGCCTCATCGCTATATGTTTTGGCAGTCCTTACACTCTGGCACTAACTAGTGGCTCAGGAGCCACAGAGGGCTGCTTACCAGCAGGCC : 100
 FLO5-YH1A : ATGACAATGCACACCACTGCAATAATTTTGGTAATCTTGGCTTCTGGCACTAACTAGTGGCTCAGGAGCCACAGAGGGCTGCTTACCAGCAGGCC : 100
 FLO9-YH1A : ATGTCTCTGGCACAATATGTTTACTAGAGCACTGGCTCACTTCTGGGATTAACAATAATGTTGCTCTGCGACTACAGCGGCATGCTGCCAGCAAAAT : 100
 ATGacaatg C CAtc cT taT tttTgGca TcTt aCa TtCTGGcActTAA TaaTgTgGcCTCaGgagCcACAGAGGCGtGcTtTaCCAGCAgGcC

* 120 * 140 * 160 * 180 * 200
 FLO1-YH1A : AGAGGAAAGTGGGATGAATA TAAATTTTTACCAGTATTCAATGAAAGATTCTCTCCACATATTCGAATGCAGCATATATGGCTTATGGCTATGCCTCAA : 200
 FLO1-YL1C : AGAGGAAAGTGGGATGAATA TAAATTTTTACCAGTATTCAATGAAAGATTCTCTCCACATATTCGAATGCAGCATATATGGCTTATGGCTATGCCTCAA : 200
 FLO5-YH1A : AGAGGAAAGTGGGATGAATA TAAATTTTTACCAGTATTCAATGAAAGATTCTCTCCACATATTCGAATGCAGCATATATGGCTTATGGCTATGCCTCAA : 200
 FLO9-YH1A : CAAGGAAAGTGGGATGAATA TAAATTTTTACCAGTATTCAATGAAAGATTCTCTCCACATATTCGAATGCAGCATATATGGCTTATGGCTATGCCTCAA : 200
 agAGGAAaAgTGGgATGAATaTAAATTTTTACCAGTATTCAATGAAAGATTCTCTCCACATATTCGAATGCAGCATATATGGCTTATgGATATGCctcaAA

* 220 * 240 * 260 * 280 * 300
 FLO1-YH1A : AACCAAACTAGGTTCTGTCCGAGGCAAAACGATATCTCGATTGATTATAATTTCCCTGTGTAGTTTCATCAGGCACATTTCCCTGTCTCAAGAAGAT : 300
 FLO1-YL1C : AGTCAAAATGGGCTCTGTACTTGGCAAACGATATCTCATCAACTATAATTTCCCTGTGTAGTTTCATCAGGCACATTTCCCTGTCTCAAGAAGAT : 300
 FLO5-YH1A : AACCAAACTAGGTTCTGTCCGAGGCAAAACGATATCTCGATTGATTATAATTTCCCTGTGTAGTTTCATCAGGCACATTTCCCTGTCTCAAGAAGAT : 300
 FLO9-YH1A : AACCAAACTAGGTTCTGTCCGAGGCAAAACGATATCTCGATTGATTATAATTTCCCTGTGTAGTTTCATCAGGCACATTTCCCTGTCTCAAGAAGAT : 300
 AaccAAAcT GgTtCTGTcGgAGgCAAAAcTgATAT TCGAtTgAtTATAATtATCC TGTGTtAgTtCaTCAGGcAcATtTcCTGtCTcCTCAAGAAGAT

* 320 * 340 * 360 * 380 * 400
 FLO1-YH1A : TCCATGGAACCTGGGATGCAAAGGAATGGTGTCTTCTTAATAGTCAAGGAATGCATACTGGAGTACTGATTATTTGGTTTCTATACTACCCCAA : 400
 FLO1-YL1C : TTTATGCTAAATGGGGATGCAAAGGAATGGTGTCTTCTTAATAGTCAAGGAATGCATACTGGAGTACTGATTATTTGGTTTCTATACTACCCCAA : 400
 FLO5-YH1A : TCCATGGAACCTGGGATGCAAAGGAATGGTGTCTTCTTAATAGTCAAGGAATGCATACTGGAGTACTGATTATTTGGTTTCTATACTACCCCAA : 400
 FLO9-YH1A : TTTATGCTAAATGGGGATGCAAAGGAATGGTGTCTTCTTAATAGTCAAGGAATGCATACTGGAGTACTGATTATTTGGTTTCTATACTACCCCAA : 400
 T TATGG AA TGGGGATGCAAAGGAAT GGTGCTTGTCTAATA TC A AATTGCATACTGGAGTACTGATTATTTGGTTTCTATACTACCCCAA

* 420 * 440 * 460 * 480 * 500
 FLO1-YH1A : CAAACGTAACCTAGAAATGACAGGTTATTTTTACCACCACAGACGGGTTCTTACACATTCAAGTTTGTCTACAGTTGACGACTCTGCAATTTCTATCAGT : 500
 FLO1-YL1C : CAAACGTAACCTAGAAATGACAGGTTATTTTTACCACCACAGACGGGTTCTTACACATTCAAGTTTGTCTACAGTTGACGACTCTGCAATTTCTATCAGT : 500
 FLO5-YH1A : CAAACGTAACCTAGAAATGACAGGTTATTTTTACCACCACAGACGGGTTCTTACACATTCAAGTTTGTCTACAGTTGACGACTCTGCAATTTCTATCAGT : 500
 FLO9-YH1A : CAAACGTAACCTAGAAATGACAGGTTATTTTTACCACCACAGACGGGTTCTTACACATTCAAGTTTGTCTACAGTTGACGACTCTGCAATTTCTATCAGT : 500
 CAAACGTAACCTAGAAATGACAGGTTATTTTTACCACCACAGACGGGTTCTTACACAttCaagTTTGTcTACAGTtGAcGAcTcTGCAAttTcTATCAGT

* 520 * 540 * 560 * 580 * 600
 FLO1-YH1A : AGGTGGTGAACCGCGTTCAACTGTGTGTCACAAAGCAACCGCGCATACATCAACTCAACTTTACCATGTCGGTATTAAGCCATGGGGTGAAGTTTG : 600
 FLO1-YL1C : CGGTGGTGAACCGCGTTCAACTGTGTGTCACAAAGCAACCGCGCATACATCAACTCAACTTTACCATGTCGGTATTAAGCCATGGGGTGAAGTTTG : 600
 FLO5-YH1A : CGGTGGTGAACCGCGTTCAACTGTGTGTCACAAAGCAACCGCGCATACATCAACTCAACTTTACCATGTCGGTATTAAGCCATGGGGTGAAGTTTG : 600
 FLO9-YH1A : CGGTGGTGAACCGCGTTCAACTGTGTGTCACAAAGCAACCGCGCATACATCAACTCAACTTTACCATGTCGGTATTAAGCCATGGGGTGAAGTTTG : 600
 cGGTGGTg cattCGTTCgAaTgTtGTGCaCAAGaCAACcTCC ATcAc TCgAc aAcTt AC ATcaatGGTATcAAAGCCATGG aTgGAAgTc c

* 620 * 640 * 660 * 680 * 700
 FLO1-YH1A : CCACCTAATATCGAAGGAACGCTCTAATGTACGCTGCTACTATTATCCAAATGAAGTTGTTTACTCACAACGCTGTTCTTGGGGTACACTTCCAATTA : 700
 FLO1-YL1C : CCTGATAATATCGAAGGACGCTCTAATGTACGCTGCTACTATTATCCAAATGAAGTTGTTTACTCACAACGCTGTTCTTGGGGTACACTTCCAATTA : 700
 FLO5-YH1A : CCTGATAATATCGAAGGACGCTCTAATGTACGCTGCTACTATTATCCAAATGAAGTTGTTTACTCACAACGCTGTTCTTGGGGTACACTTCCAATTA : 700
 FLO9-YH1A : CCTGATAATATCGAAGGACGCTCTAATGTACGCTGCTACTATTATCCAAATGAAGTTGTTTACTCACAACGCTGTTCTTGGGGTACACTTCCAATTA : 700
 CCTgatAATATcCaAGGAcTcGTCTAcATGTATGcTGG T CTATTATCCaATGAAG TTGTTTACTC AAtGcGcGTT CcTGGGGtAcAcTtTCCAATTA

* 720 * 740 * 760 * 780 * 800
 FLO1-YH1A : GTGTGACACTCCAGATGGTACCACCTGTAAGTGATGACTTGAAGGGTACGTTCTATTCTTTGACGATGACTAAGTCAATCTAACTGTACTGTCCCTGA : 800
 FLO1-YL1C : GTGTGACACTCCAGATGGTACCACCTGTAAGTGATGACTTGAAGGGTACGTTCTATTCTTTGACGATGACTAAGTCAATCTAACTGTACTGTCCCTGA : 800
 FLO5-YH1A : GGTGGAATCTCCAGATGGTACCACCTGTAAGTGATGACTTGAAGGGTACGTTCTATTCTTTGACGATGACTAAGTCAATCTAACTGTACTGTCCCTGA : 800
 FLO9-YH1A : GTGTGACACTCCAGATGGTACCACCTGTAAGTGATGACTTGAAGGGTACGTTCTATTCTTTGACGATGACTAAGTCAATCTAACTGTACTGTCCCTGA : 800
 GtGTGAcAcT cCaGATGG ActAc GtTAgTGATgAcTtTGAAGGGTAcGT TAt C TTTGAc A A CtaAg CAgTc AA TGtAc aT cC GA

* 820 * 840 * 860 * 880 * 900
 FLO1-YH1A : CCCTTCAAATATATCTCCAGTACACTAACAATACACAGGAAACCATGGACCGGTACTTCACTTCTACATCTACTGAAATGACCACCGTCCACCGGTACC : 900
 FLO1-YL1C : CCCTTCAAATATATCTCCAGTACACTAACAATACACAGGAAACCATGGACCGGTACTTCACTTCTACATCTACTGAAATGACCACCGTCCACCGGTACC : 900
 FLO5-YH1A : CCCTTCAAATATATCTCCAGTACACTAACAATACACAGGAAACCATGGACCGGTACTTCACTTCTACATCTACTGAAATGACCACCGTCCACCGGTACC : 900
 FLO9-YH1A : CCCTTCAAATATATCTCCAGTACACTAACAATACACAGGAAACCATGGACCGGTACTTCACTTCTACATCTACTGAAATGACCACCGTCCACCGGTACC : 900
 cCCTTCAAttATaTcTg cAgTAcTAc A AACTAcAc GA CCATGGACCGGTACTTcACTTCTAcAtCTAcTGAaATGACCACcgTCCACCGGTACC

* 920 * 940 * 960 * 980 * 1000
 FLO1-YH1A : AACGGCTTCCAACCTGACGAAACCGTCACTTGTCTCAGAAACCTCAACAACTGCTAGCACCATCATAAATCAACTGAGCCATGGAACAACACTTTTACCT : 1000
 FLO1-YL1C : AATGGCTTCCAACCTGACGAAACCGTCACTTGTCTCAGAAACCTCAACAACTGCTAGCACCATCATAAATCAACTGAGCCATGGAACAACACTTTTACCT : 1000
 FLO5-YH1A : AACGGT-----CAAT----- : 911
 FLO9-YH1A : AACGGCTTCCAACCTGACGAAACCGTCACTTGTCTCAGAAACCTCAACAACTGCTAGCACCATCATAAATCAACTGAGCCATGGAACAACACTTTTACCT : 1000
 AAcGgc t ccaactgacgaaacc tcattgt tcagaac ccaaCAAcTgctagcaccatcataaactacaactgagccatgga gcaactt ac t

* 1020 * 1040 * 1060 * 1080 * 1100
 FLO1-YH1A : CTACTTCTACCGAATTGACCACAGTCACTGGCACCACCTGGTGTACGAAGTACGAAACCATCATTGTAAATCAGAACACCAACAACGCCACTACTGCCAT : 1100
 FLO1-YL1C : CTACTTCTACCGAATTGACCACAGTCACTGGTACCACCTGGTGTACGAAGTACGAAACCATCATTGTAAATCAGAACACCAACAACGCCACTACTGCCAT : 1100
 FLO5-YH1A : -----AACTGATGAAACCTGTCATTGTAAATCAGAACCTCAACAACGCCACTACTGCCAT : 965
 FLO9-YH1A : CTACTTCTACCGAATTGACCACAGTCACTGGCACCACCTGGTGTACGAAGTACGAAACCATCATTGTAAATCAGAACACCAACAACGCCACTACTGCCAT : 1100
 ctacttctaccgaattgaccacagtccac gg accaatgg t c AACTGA GAAACcATcATTGT aTCAGAACAcCCAACAACaCaG A AC CAt

* 1120 * 1140 * 1160 * 1180 * 1200
 FLO1-YH1A : AACTACACTGAGCCATGGAACGACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTACCAATGGTTTCCAACCTGATGAGACCATCATT : 1200
 FLO1-YL1C : AACTACACTGAGCCATGGAACGACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTACCAATGGTTTCCAACCTGATGAGACCATCATT : 1200
 FLO5-YH1A : AACTACACTGAGCCATGGAACGACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTACCAATGGTTTCCAACCTGATGAGACCATCATT : 1065
 FLO9-YH1A : AACTACACTGAGCCATGGAACGACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTACCAATGGTTTCCAACCTGATGAGACCATCATT : 1200
 AACTAcAcTgAGCCATGGA c GcAcTtTt AcCTCTAc TcTAc GA TGAc Ac gTcAcCgGTAcCAa GGT t CCAAcTGA GA AccaTcAtt

* 1220 * 1240 * 1260 * 1280 * 1300
 FLO1-YH1A : GTCATCAGAACCAACAACGCCACTACTGCCANAGCAACTCAGCCATGGAAACGACACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTAC : 1300
 FLO1-YL1C : GTTGTCAAAACCAACAACGCTTGGCCATCAAACTACGACCGAACCATGGAAACGCTACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTAC : 1300
 FLO5-YH1A : GTCATCAGAACCAACAACGCCACTACTGCCANAGCAACTCAGCCATGGAAACGACACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTAC : 1165
 FLO9-YH1A : GTCATCAGAACCAACAACGCCACTACTGCCANAGCAACTCAGCCATGGAAACGACACTTTTACCTCTACTTCTACCGAATGACGACAGTCCACCGGTAC : 1300
 GTCaTcAgAACcCAACAcaGc a tac cAt AcTAc AC A CCATGGA CG ACTTT AcCtTcTAc TC AC Gaa TGAc AC GtAcCG

```

*      1320      *      1340      *      1360      *      1380      *      1400
FLO1-YH1A : GTACCAAGGTTTCCAACTGATGACCAATCATTGTGATCAGAACAACAACAGCCACTACTGCCATGACTACAACTCAGCCATGGAACGACACTTT : 1400
FLO1-YL1C : GTACCAAGGTTTCCAACTGATGAAACTGTGATGTTGTTAAAAACCTTAC----- : 1352
FLO5-YH1A : GTACCAAGGTTTCCAACTGACGAAACTGTTATTGTGATTAAGAATCC----- : 1214
FLO9-YH1A : GTACCAAGGTTTCCAACTGATGACCAATCATTGTGATCAGAACAACAACAGCCACTACTGCCATGACTACAACTCAGCCATGGAACGACACTTT : 1400
GTACCAA GGT CCAACTGATGA AC TcATTGTGcaT AgAACaCC ac

*      1420      *      1440      *      1460      *      1480      *      1500
FLO1-YH1A : TACCTCTACTTCTACCGAATTGACCACAGTCACCGGTACCAATGGTTTGCCTAAGTGTGAGACCATCATTTGTCATCAGAACCAACAACAGCCACTACT : 1500
FLO1-YL1C : -----AAGTGTGAGACCATCATATA----- : 1371
FLO5-YH1A : -----AAGTGTGAGCGTTTTCATT----- : 1233
FLO9-YH1A : TACCTCTACTTCTACCGAATTGACCACAGTCACCGGTACCAATGGTTTGCCTAAGTGTGAGACCATCATTTGTCATCAGAACCAACAACAGCCACTACT : 1500
AAGTg TgAgaccaTcAtt

*      1520      *      1540      *      1560      *      1580      *      1600
FLO1-YH1A : GCCATGACTACAACCTCAGCCATGGAACGACACTTTTACTCTACATCCACTGAAATCACCACCGTCACCGGTACCAATGGTTTGCCTGATGAGACCA : 1600
FLO1-YL1C : -----ACTACAACCT-----G----- : 1381
FLO5-YH1A : -----ACTACAACCT-----ACCC----- : 1246
FLO9-YH1A : GCCATGACTACAACCTCAGCCATGGAACGACACTTTTACTCTACATCCACTGAAATCACCACCGTCACCGGTACCAATGGTTTGCCTGATGAGACCA : 1600
ACTACAACCT accG

*      1620      *      1640      *      1660      *      1680      *      1700
FLO1-YH1A : TCATTGTGATCAGAACCAACAACAGCCACTACTGCCATGACTACACTCAGCCATGGAAACGAACTTTTACCTCTACATCCACTGAAATGACCACCT : 1700
FLO1-YL1C : -----AAGCCATGGAAACCGGTATTTCACCTTCTACTTCTACCGAATTTGACCACCT : 1430
FLO5-YH1A : -----AAGCCATGGAAACCGGTACTTTACCTCTACATCCACTGAGGTTTACCACCT : 1295
FLO9-YH1A : TCATTGTGATCAGAACCAACAACAGCCACTACTGCCATGACTACACTCAGCCATGGAAACGAACTTTTACCTCTACATCCACTGAAATGACCACCT : 1700
AgCCATGGA CG AcTtTt ACcTCTACaTcCActGaa TgACCACCGT

*      1720      *      1740      *      1760      *      1780      *      1800
FLO1-YH1A : CACCGGTACCAACGGTTTCCAACTGATGAAACCTCATTGTGATCAGAACAACAACAGCCACTACTGCCATGAAACGAACTTTGAGCCATGGAACG : 1800
FLO1-YL1C : CACCGGTACTTAATGGTTTCCAACTGAGAAACCTCATTGTGATCAGAACAACAACAGCCACTACTGCCATGAAACGAACTTTGAGCCATGGAACG : 1530
FLO5-YH1A : CACTGGTACCAACGGTTCAACCAACTGAGAAACCTGATTTGATCAGAACTCCAACTAGTTCAGGGTTTGAATTACTACCACTACCGAACCATGGAAACG : 1395
FLO9-YH1A : CACCGGTACCAACGGTTTCCAACTGATGAAACCTCATTGTGATCAGAACAACAACAGCCACTACTGCCATGAAACGAACTTTGAGCCATGGAACG : 1800
CACcGGTACcAacGGtttGcCAACTGA GAAACCaTcATTGTcaTcAGAACAACAACaC Gc a tac cAtaActAcAACTGAGCCATGGA C G

*      1820      *      1840      *      1860      *      1880      *      1900
FLO1-YH1A : ACTTTTACCTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGATGAAACCATCATTGTGATCAGAACAACAACAGCC : 1900
FLO1-YL1C : ATTTTCCACTTCTACTTCTACGAAATGACCAACCGTACCGGTACCAACCGTTTCCAACTGATGAAACCATCATTGTGATCAGAACAACAACAGCC : 1630
FLO5-YH1A : ACTTTTACCTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGATGAAACCATCATTGTGATCAGAACAACAACAGCC : 1495
FLO9-YH1A : ACTTTTACCTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGATGAAACCATCATTGTGATCAGAACAACAACAGCC : 1900
AcTtTt ACcTCTACaTc ActGaaTgACcAcCcGTCACCGGTACCAACCGTT CCAACTGATGAAAC TcATTGT aTcAgAACaCcaCaC Gc a

*      1920      *      1940      *      1960      *      1980      *      2000
FLO1-YH1A : CTACTGCCATAACTACAACCTCAGCCATGGAACGAACTTTTACTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGAT : 2000
FLO1-YL1C : ACAACCATCATAACTACAACCTCAGCCATGGAACGAACTTTTACTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGAT : 1730
FLO5-YH1A : CTCTAATCAGCACCACTCAGCCATGGAACGAACTTTTACTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGATGAT : 1595
FLO9-YH1A : CTACTGCCATAACTACAACCTCAGCCATGGAACGAACTTTTACTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGTTTCCAACTGAT : 2000
tac CAtaActAcAACT AgCCATGGA G cACTTt ACcTCTACaTc ActGaa TgACCACcGTCACCGGTACCAACCGTtttGcCAACTGATGA

*      2020      *      2040      *      2060      *      2080      *      2100
FLO1-YH1A : AACCATCATTGTCATCAGAACAACAACAGCCACTACTGCCATGACTACAACCTCAGCCATGGAAACGAACTTTTACTCTACATCCACTGAAATCACC : 2100
FLO1-YL1C : AACCATCATTGTTGTTTAAACAACCTCACAACCTGCTTACCCATCATCACTACAACCTCAGCCATGGAACTGCACTTCCACTTCTACTTCTACCGAAT : 1830
FLO5-YH1A : AACCGTCAATTGTCATGAGAACTCC--AACT--AGTGA-- : 1629
FLO9-YH1A : AACCATCATTGTCATCAGAACAACAACAGCCACTACTGCCATGACTACAACCTCAGCCATGGAAACGAACTTTTACTCTACATCCACTGAAATCACC : 2100
AACCaTcATTGTcaT AgAACaCC acAAC gc a ac cat actacaAcT AgCcatgga g cactt ac tctac tc ac gaa t acc

*      2120      *      2140      *      2160      *      2180      *      2200
FLO1-YH1A : ACCCTCACCAGTACCAACGGTTTCCAACTGATGAGCCATCATTGTGATCAGAACAACAACAGCCACTACTGCCATGACTACAACCTCAGCCATGGA : 2200
FLO1-YL1C : ACAACCCACCGGTACCAATGGTTTCCAACTGATGAAACCATCATTGTGTTTAAACAC-----CTACAACCTG----- : 1897
FLO5-YH1A : -----GGTTT-----ATTAA-----CTACAACCT----- : 1647
FLO9-YH1A : ACCCTCACCAGTACCAACGGTTTCCAACTGATGAGCCATCATTGTGATCAGAACAACAACAGCCACTACTGCCATGACTACAACCTCAGCCATGGA : 2200
ac g caccgtacca GGTTGcCAactgatga accatcattgt aT A aaac CTACAACCT

*      2220      *      2240      *      2260      *      2280      *      2300
FLO1-YH1A : ACGACACTTTTACCTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGCGTTTCCAACTGACGAAACCGTTCATTGTCATCAGAACTCCA : 2300
FLO1-YL1C : -----CTAAC-----ACCAATCATA----- : 1911
FLO5-YH1A : ----- : -
FLO9-YH1A : ACGACACTTTTACCTCTACATCCACTGAAATGACCACCGTCACCGGTACCAACCGCGTTTCCAACTGACGAAACCGTTCATTGTCATCAGAACTCCA : 2300
c aac acc tcat

*      2320      *      2340      *      2360      *      2380      *      2400
FLO1-YH1A : TGAAGGTCTAATCAGCACCCACTGAAACCTGGAACGGTACTTTTACCTCTACATCCACTGAGATGACCAACCGTACCGGTACCAACGGTCAACCA : 2400
FLO1-YL1C : -----ACCACCACTGAACCATGGACCGGTACTTTTACTCTACATCCACTGAGATGACCAACCGTACCGGTACCAACGGTCAACCAACT : 1995
FLO5-YH1A : -----ACCGAACCATGGACCGGAACCTTTACTCTACATCCACTGAGATGACTACTGTACCGGTACCAACGGTCAACCAACT : 1725
FLO9-YH1A : TGAAGGTCTAATCAGCACCCACTGAAACCTGGAACGGTACTTTTACCTCTACATCCACTGAGATGACCAACCGTACCGGTACCAACGGTCAACCA : 2400
accaccActGAACCATGGAC GGtACTTtAcTcTcAcTcAcTCCACTGAGATGACcAcCgTcACCcGGTAC AACGGTCAACCAACT

*      2420      *      2440      *      2460      *      2480      *      2500
FLO1-YH1A : GACGAAACCGTATTGTTTATCAGAACTCCAACAGTGAAGGTTTGGTTTACAAACCAACTGAAACCTGAGTGGTACTTTTACTTCTACATCTACTGAA : 2500
FLO1-YL1C : GACGAAACTGTTATTGTTTATCAGAACCCTCAACTAGTGAAGGTTTGGTTTACAAAC----- : 2048
FLO5-YH1A : GACGAAACTGTTATTGTTTATCAGAACTCCAACAGTGAAGGTTTGGTTTACAAAC----- : 1778
FLO9-YH1A : GACGAAACCGTATTGTTTATCAGAACTCCAACAGTGAAGGTTTGGTTTACAAAC----- : 2453
GACGAAAC GTgATTGTTtATcAGAActCCAAC AGTGAaGGTTTGGTTAcAc

*      2520      *      2540      *      2560      *      2580      *      2600
FLO1-YH1A : TGACCACCATTACTGGAACCAACGGCGTTTCCAACCTGACGAAACCGTTCATTGTCATCAGAACTCCAACCAAGTGAAGGTCTAATCAGCACCACTGAAC : 2600
FLO1-YL1C : ----- : -
FLO5-YH1A : ----- : -
FLO9-YH1A : ----- : -

```

```

*      2620      *      2640      *      2660      *      2680      *      2700
FLO1-YH1A : ATGGACTGGTACTTTTACTTCTACATCTACTGAAATGACCACCATTACTGGAACCAATGGTCAACCAACTGACGAAACCGTTATTGTTATCAGAACTCCA : 2700
FLO1-YL1C : ----- : -
FLO5-YH1A : ----- : -
FLO9-YH1A : ----- : -

*      2720      *      2740      *      2760      *      2780      *      2800
FLO1-YH1A : ACTAGTGAAGGTCTAATCAGCACTACACGGAACCATGGACGGTACTTTTACTTCTACATCTACTGAAATGACGACAGTCAACCGGTACCAACGGCGTTC : 2800
FLO1-YL1C : -----CACCACCTGACCATGGACTGGTACTTTTACTTCTACATCTACTGAGATGAC : 2099
FLO5-YH1A : -----AACAACCGAACCATGGACGGTACTTTTACTTCTACATCTACTGAGCTTAC : 1829
FLO9-YH1A : -----TACACCGAACCATGGACGGTACTTTTACTTCTACATCTACTGAGATGAC : 2504
AC AC GAACCATGGAC GGTACTTTTAC TCTACATCTACTGAGaTgAC

*      2820      *      2840      *      2860      *      2880      *      2900
FLO1-YH1A : CAACTGACGAAACCGTCATTGTCTATCAGAACTCCAACCAAGTGAAGGTCTAATCAGCACCACCCTGAAACATGGACTGGCACTTTCACCTCGACTTCCAC : 2900
FLO1-YL1C : ----- : -
FLO5-YH1A : ----- : -
FLO9-YH1A : ----- : -

*      2920      *      2940      *      2960      *      2980      *      3000
FLO1-YH1A : TGAGGTTACCACCATCACTGGAACCAACGGTCAACCAACTGACGAAACTGTGATTGTTATCAGAACTCCAACCAAGTGAAGGTCTAATCAGCACCACCCT : 3000
FLO1-YL1C : -----CACCATCACTGGAACCAACGGTCAACCAACTGA : 2132
FLO5-YH1A : -----CACCATCACTGGTACCAACGGTCAACCAACTGA : 1862
FLO9-YH1A : -----CACCATCACTGGAACCAACGGTCAACCAACTGA : 2537
CACCATCACTGGAACCAACGGTCAACCAACTGA

*      3020      *      3040      *      3060      *      3080      *      3100
FLO1-YH1A : GAACCATGGACTGGTACTTTCACCTTCTACATCTACTGAAATGACCACCCTGACCGGTACTAACGGTCAACCAACTGACGAAACCGTGATTGTTATCAGAA : 3100
FLO1-YL1C : ----- : -
FLO5-YH1A : ----- : -
FLO9-YH1A : ----- : -

*      3120      *      3140      *      3160      *      3180      *      3200
FLO1-YH1A : CTCCAACCAAGTGAAGGTTGGTTACAACCAACCACTGAACCATGGACTGGTACTTTTACTTCCGACTTCCACTGAAATGTCTACTGTCTACTGGAACCAATGG : 3200
FLO1-YL1C : ----- : -
FLO5-YH1A : ----- : -
FLO9-YH1A : ----- : -

*      3220      *      3240      *      3260      *      3280      *      3300
FLO1-YH1A : CTTGCCAAGTGAAGAACTGTGATTGTTGTCAAAACCTCAACTACTGCCATCTCATCCAGTTTGTGCATCTTCATCTTCAGGACAAATCACCAGCTTATTC : 3300
FLO1-YL1C : -----TGAAACTGTGATTGTTGTCAAAACCTCAACTACTGCCATCTCATCCAGTTTGTGCATCTTC---TTCAGGACAAATCACCAGCTTATTC : 2217
FLO5-YH1A : -----CGAAACTGTGATTGTCATCAGAACTCAACTACTGCCATCTCATCCAGTTTGTGCATCTTC---TTCAGGACAAATCACCAGCTTATTC : 1947
FLO9-YH1A : -----TGAAACTGTGATTGTTGTCAAAACCTCAACTACTGCCATCTCATCCAGTTTGTGCATCTTC---TTCAGGACAAATCACCAGCTTATTC : 2622
tGAAACTGTGATT TtGTCaAAACTCAACTACTGCCATCTCATCCAGTTTGTGCATCTTC TTCAGGACAAATCACCAGCT TATC

*      3320      *      3340      *      3360      *      3380      *      3400
FLO1-YH1A : ACGTCTTCGGCTCCAATTATTACCCATTCTATCTAGCAATGGAACCTCTGTGATTTCCTCCTCAGTAATTTCTTCCTCAG----- : 3382
FLO1-YL1C : ACGTCTTCGGCTCCAATTATTACCCATTCTATCTAGCAATGGAACCTCTGTGATTTCCTCCTCAGTAATTTCTTCCTCAGACACTTCTTCTCTAGTCA : 2317
FLO5-YH1A : ACGTCTTCGGCTCCAATTATTACCCATTCTATCTAGCAATGGAACCTCTGTGATTTCCTCCTCAGTAATTTCTTCCTCAG----- : 2029
FLO9-YH1A : ACGTCTTCGGCTCCAATTATTACCCATTCTATCTAGCAATGGAACCTCTGTGATTTCCTCCTCAGTAATTTCTTCCTCAGACTTCTTCTCTAGTCA : 2722
ACGCTCTTCGGCTCCAATTATTACCCATTCTATCTAGCAATGGAACCTCTGTGATTTCCTCCTCAGTAATTTCTTCCTCAG

*      3420      *      3440      *      3460      *      3480      *      3500
FLO1-YH1A : -----TCACTTCTTCTCTATTCACCTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGT : 3458
FLO1-YL1C : TTTCTTCTCAGTCACTTCTTCTCTAGTCACTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGT : 2417
FLO5-YH1A : -----TCACTTCTTCTCTAGTCACTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGT : 2105
FLO9-YH1A : TTTCTTCTCAGTCACTTCTTCTCTAGTCACTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGT : 2822
TCACTTCTTCTCTAGTCACTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGTCAATTTCTTCTCAGT

*      3520      *      3540      *      3560      *      3580      *      3600
FLO1-YH1A : TATAATTTCTGAAATCATCTAATATCATCCGTCATTCCAACCAAGTAGTTCCACCTCTGGTTCTTCTGAGAGCGAAACGGTTTCAGTGGTTCTTCTTCT : 3558
FLO1-YL1C : TATAATTTCTGAAATCATCTAATATCATCCGTCATTCCAACCAAGTAGTTCCACCTCTGGTTCTTCTGAGAGCGAAACGGTTTCAGTGGTTCTTCTTCT : 2517
FLO5-YH1A : TATAATTTCTGAAATCATCTAATATCATCCGTCATTCCAACCAAGTAGTTCCACCTCTGGTTCTTCTGAGAGCGAAACGGTTTCAGTGGTTCTTCTTCT : 2205
FLO9-YH1A : TATAATTTCTGAAATCATCTAATATCATCCGTCATTCCAACCAAGTAGTTCCACCTCTGGTTCTTCTGAGAGCGAAACGGTTTCAGTGGTTCTTCTTCT : 2922
TATA TcTCTGAAATCATCTAaATCATCCGTCATTCCAACCAAGTAGTTCCACCTCTGGTTCTTCTGAGAGCGAAACG GTTCaGcTaGTTCTgCtCTTCT

*      3620      *      3640      *      3660      *      3680      *      3700
FLO1-YH1A : TCCTCTTTATCTCTTCTGAATCAACAAAATCTCCTACATATCTTCTTCATCATTACCACCTGTGTACCAGTGCACAACAAGCAGGAAACTGCTTCTT : 3658
FLO1-YL1C : TCCTCTTTATCTCTTCTGAATCAACAAAATCTCCTACATATCTTCTTCATCATTACCACCTGTGTACCAGTGCACAACAAGCAGGAAACTGCTTCTT : 2614
FLO5-YH1A : TCCTCTTTATCTCTTCTGAATCAACAAAATCTCCTACATATCTTCTTCATCATTACCACCTGTGTACCAGTGCACAACAAGCAGGAAACTGCTTCTT : 2305
FLO9-YH1A : TCCTCTTTATCTCTTCTGAATCAACAAAATCTCCTACATATCTTCTTCATCATTACCACCTGTGTACCAGTGCACAACAAGCAGGAAACTGCTTCTT : 3019
TCCTCTTTATCTCTTCTGAATCAcCAAAGTCT ACATATTC TCTTCATCATTACCACcTGTACCAGTGC ACAACAaG CAGGAAa T CTCTTT

*      3720      *      3740      *      3760      *      3780      *      3800
FLO1-YH1A : CATTACCACCTGTACCACCTACAAAACGAGCGGAACAAACCCTTTGGTTACCAGTGCATCTGCGAATCTCATGTGTGCACTGAATCTATCTCCCTCTGC : 3758
FLO1-YL1C : CATTACCACCTGTACCACCTACAAAACGAGCGGAACAAACCCTTTGGTTACCAGTGCATCTGCGAATCTCATGTGTGCACTGAATCTATCTCCCTCTGC : 2714
FLO5-YH1A : CATTACCACCTGTACCACCTACAAAACGAGCGGAACAAACCCTTTGGTTACCAGTGCATCTGCGAATCTCATGTGTGCACTGAATCTATCTCCCTCTGC : 2405
FLO9-YH1A : CATTACCACCTGTACCACCTACAAAACGAGCGGAACAAACCCTTTGGTTACCAGTGCATCTGCGAATCTCATGTGTGCACTGAATCTATCTCCCTCTGC : 3119
CATTACCACCTGT ACCACCTACAAAACGAGCGGAACAAACCCTTTGGTTACCAGTGCATCTGCGAATCTCATGTGTGcACTGAATC ATCTCCTCTGC

*      3820      *      3840      *      3860      *      3880      *      3900
FLO1-YH1A : GATTGTTTCCACAGCTTACTGTTACTGTTAGCGGGTCCACAACAGAGTATACCACCTGGTGCCTATTTCTACACACAGATAACAAGCAAACTACGGAG : 3838
FLO1-YL1C : GATTGTTTCCACAGCTTACTGTTACTGTTAGCGGGTCCACAACAGAGTATACCACCTGGTGCCTATTTCTACACACAGATAACAAGCAAACTACGGAG : 2814
FLO5-YH1A : TATTGTTTCCACAGCTTACTGTTACTGTTAGCGGGTCCACAACAGAGTATACCACCTGGTGCCTATTTCTACACACAGATAACAAGCAAACTACGGAG : 2505
FLO9-YH1A : GATTGTTTCCACAGCTTACTGTTACTGTTAGCGGGTCCACAACAGAGTATACCACCTGGTGCCTATTTCTACACACAGATAACAAGCAAACTACGGAG : 3219
gATTGTTTCCACgCcAcCGTTACTGTTAGCGG G CACAACAGAGTATACCACaTGGTGCCTATTTCTACACAGAGA aacaagcaaac a gg g

```

```
*          3920          *          3940          *          3960          *          3980          *          4000
FLO1-YH1A : -CAACAAGCAAAACCAAGGGGACAACAGAGCAAACCAGAAACAACAAAACAAACCACGGTAGTTACAATTTCTTCTGTGAATCTGACGTATGCTCTA : 3937
FLO1-YL1C : ACAACAAGCAAAACCAAGGGGACAACAGAGCAAACCAGAAACAACAAAACAAACCACGGTAGTTACAATTTCTTCTGTGAATCTGACGTATGCTCTA : 2914
FLO5-YH1A : ACAACAAGCAAAACCAAGGGGACAACAGAGCAAACCAGAAACAACAAAACAAACCACGGTAGTTACAATTTCTTCTGTGAATCTGACGTATGCTCTA : 2605
FLO9-YH1A : ACAACAAGCAAAACCAAGGGGACAACAGAGCAAACCAGAAACAACAAAACAAACCACGGTAGTTACAATTTCTTCTGTGAATCTGACGTATGCTCTA : 3319
acaACAaagCAAAACCAAGGGGACAACAGAGCAAACCAGAAACAACAAAACAAACCACaGGTAGTTACAATTTCTTCTGTGAATCTGACGTATGCTCTA

*          4020          *          4040          *          4060          *          4080          *          4100
FLO1-YH1A : AGACTGCTTCTCCAGCCATTGTATCTACAAGCACTGCTACTATTAACGGCGTTACACAGAATACACACATGGGTGCTCTATTTCCACCACAGAATCGAG : 4037
FLO1-YL1C : AGACTGCTTCTCCAGCCATTGTATCTACAAGCACTGCTACTATTAACGGCGTTACACAGAATACACACATGGGTGCTCTATTTCCACCACAGAATCGAG : 3014
FLO5-YH1A : AGACTGCTTCTCCAGCCATTGTATCTACAAGCACTGCTACTATTAACGGCGTTACACAGAATACACACATGGGTGCTCTATTTCCACCACAGAATCGAA : 2705
FLO9-YH1A : AGACTGCTTCTCCAGCCATTGTATCTACAAGCACTGCTACTATTAACGGCGTTACACAGAATACACACATGGGTGCTCTATTTCCACCACAGAATCGAA : 3419
AGACTGCTTCTCCAGCCATTGTATCTACAAGCACTGCTACTATTAACGGCGTTACACAGAATACACACATGGGTGCTCTATTTCCACCACAGAATCGA

*          4120          *          4140          *          4160          *          4180          *          4200
FLO1-YH1A : GCAACAACACACGCTAGTTACTGTTACTTCTGCGAATCTGGTGTGTGTTCCGAAACTCTTCACCTGCCATTGTTTCGACGGCCACGGCTACTGTGAAT : 4137
FLO1-YL1C : GCAACAACACACGCTAGTTACTGTTACTTCTGCGAATCTGGTGTGTGTTCCGAAACTCTTCACCTGCCATTGTTTCGACGGCCACGGCTACTGTGAAT : 3114
FLO5-YH1A : GCAACAACACACGCTAGTTACTGTTACTTCTGCGAATCTGGTGTGTGTTCCGAAACTCTTCACCTGCCATTGTTTCGACGGCCACGGCTACTGTGAAT : 2805
FLO9-YH1A : GCAACAACACACGCTAGTTACTGTTACTTCTGCGAATCTGGTGTGTGTTCCGAAACTCTTCACCTGCCATTGTTTCGACGGCCACGGCTACTGTGAAT : 3519
GCAACAACACACGCTAGTTACTGTTACTTCTGCGAATCTGGTGTGTGTTCCGAAACTCTTCACCTGCCATTGTTTCGACGGCCACGGCTACTGTGAAT

*          4220          *          4240          *          4260          *          4280          *          4300
FLO1-YH1A : GATGTTGTACGGTCTATCTACATGGAGCCACAGACTCGAATGAAAGAGTCTGTGAGCTCTAAAATGAACAGTGTCTACCGTGAGACAACACCAATA : 4237
FLO1-YL1C : GATGTTGTACGGTCTATCTACATGGAGCCACAGACTCGAATGAAAGAGTCTGTGAGCTCTAAAATGAACAGTGTCTACCGTGAGACAACACCAATA : 3214
FLO5-YH1A : GATGTTGTACGGTCTATCTACATGGAGCCACAGACTCGAATGAAAGAGTCTGTGAGCTCTAAAATGAACAGTGTCTACCGTGAGACAACACCAATA : 2905
FLO9-YH1A : GATGTTGTACGGTCTATCTACATGGAGCCACAGACTCGAATGAAAGAGTCTGTGAGCTCTAAAATGAACAGTGTCTACCGTGAGACAACACCAATA : 3619
GATGTTGTACGGTCTATCTACATGGAGCCACAGACTCGAATGAAAGAGTCTGTGAGCTCTAAAATGAACAGTGTCTACCGTGAGACAACACCAATA

*          4320          *          4340          *          4360          *          4380          *          4400
FLO1-YH1A : CTTTAGCTGCTGAAACGACTACCAATACTCTAGCTGCTGAGACCACTACCAATACTGAGCTGCTGAGACGAAAACAGTAGTCACCTCTTCTGCTTTCAAG : 4337
FLO1-YL1C : CT-----GGAGCTGCTGAGACCACTACCAATACTGAGCTGCTGAGACGAAAACAGTAGTCACCTCTTCTGCTTTCAAG : 3287
FLO5-YH1A : CT-----GGGCTGCTGAGACCACTACCAATACTGAGCTGCTGAGACGAAAACAGTAGTCACCTCTTCTGCTTTCAAG : 2951
FLO9-YH1A : CT-----GGAGCTGCTGAGACCACTACCAATACTGAGCTGCTGAGACGAAAACAGTAGTCACCTCTTCTGCTTTCAAG : 3692
CT-----GgAGCTGCTGAGACCa acca tactggagctgctgagacgaAAAACAGTAGTCACCTCTTCTGCTTTCAAG

*          4420          *          4440          *          4460          *          4480          *          4500
FLO1-YH1A : ATCTAATCAGCTGAAACACAGACGGCTTCCGCGACCGATGTGATGGTTCACAGCAGTAGTGTGTTTCTGTATCCGAAACTGGCAACACCAAGAGTCTA : 4437
FLO1-YL1C : ATCTAATCAGCTGAAACACAGACGGCTTCCGCGACCGATGTGATGGTTCACAGCAGTAGTGTGTTTCTGTATCCGAAACTGGCAACACCAAGAGTCTA : 3387
FLO5-YH1A : ATCTAATCAGCTGAAACACAGACGGCTTCCGCGACCGATGTGATGGTTCACAGCAGTAGTGTGTTTCTGTATCCGAAACTGGCAACACCAAGAGTCTA : 3051
FLO9-YH1A : ATCTAATCAGCTGAAACACAGACGGCTTCCGCGACCGATGTGATGGTTCACAGCAGTAGTGTGTTTCTGTATCCGAAACTGGCAACACCAAGAGTCTA : 3792
AT AATCAcGCTGAAACACAGAcGcTTCCGCGACCGATGTGATGGTTCACAGCAGTAGTGTGTTTCTGTATCCGAAACTGGCAACACCAAGAGTCTA

*          4520          *          4540          *          4560          *          4580          *          4600
FLO1-YH1A : ACAAGTTCCGGGTTGAGTACTATGTCGCAACAGCCTCGTAGCACACCAGCAAGAGCATGGTAGGATAGTAGACAGCTTCTTTAGAAATTTCAACGTATG : 4537
FLO1-YL1C : ACAAGTTCCGGGTTGAGTACTATGTCGCAACAGCCTCGTAGCACACCAGCAAGAGCATGGTAGGATAGTAGACAGCTTCTTTAGAAATTTCAACGTATG : 3487
FLO5-YH1A : ACAAGTTCCGGGTTGAGTACTATGTCGCAACAGCCTCGTAGCACACCAGCAAGAGCATGGTAGGATAGTAGACAGCTTCTTTAGAAATTTCAACGTATG : 3151
FLO9-YH1A : ACAAGTTCCGGGTTGAGTACTATGTCGCAACAGCCTCGTAGCACACCAGCAAGAGCATGGTAGGATAGTAGACAGCTTCTTTAGAAATTTCAACGTATG : 3892
ACAAGTTCCGGGTTGAGTACTATGTCGCAACAGCCTCGTAGCACACCAGCAAGAGCATGGTAGGATAGTAGACAGCTTCTTTAGAAATTTCAACGTATG

*          4620          *          4640          *          4660          *
FLO1-YH1A : CTGGCAGTGCCAAACAGCTTACTGGCCGGTAGTGGTTTAAAGTGTCTTCATTGCGTCTTATTGCTGGCAATTATTTAA : 4614
FLO1-YL1C : CTGGCAGTGCCAAACAGCTTACTGGCCGGTAGTGGTTTAAAGTGTCTTCATTGCGTCTTATTGCTGGCAATTATTTAA : 3564
FLO5-YH1A : CTGGCAGTGCCAAACAGCTTACTGGCCGGTAGTGGTTTAAAGTGTCTTCATTGCGTCTTATTGCTGGCAATTATTTAA : 3228
FLO9-YH1A : CTGGCAGTGCCAAACAGCTTACTGGCCGGTAGTGGTTTAAAGTGTCTTCATTGCGTCTTATTGCTGGCAATTATTTAA : 3969
CTGGCAGTGCCAAACAGCTTACTGGCCGGTAGTGGTTTAAAGTGTCTTCATTGCGTCTTATTGCTGGCAATTATTTAA
```

Figure S6 Comparison of sequence of paralogues FLO1, FLO5 and FLO9 between two parental strains YH1A and YL1C. The primers for the FLO1 specific expression analysis were designed at the sequence highlighted by red ink.