

Table S1 Primer sequence

Primer names	Primer sequences (5'-3')
PIActin-F	GGTCTATTCTTGCTTCCCTC
PIActin-R	CCCTCTGCGTCTACACTTTC
M13F	GTAAAACGACGGCCAG
M13R	CAGGAAACAGCTATGAC
1300JP-F	ACGCACAATCCCACTATCCTT
1300JP-R	ATCGCCCTCGCCCTCGCCGG
T7	TAATACGACTCACTATAGGGC
3' BD	CCCGGAATTAGCTTGGCTGCAAGC
1301JP-F	AGACGTTCCAACCACGTCTT
1301JP-R	AGCTATGTAATATTTACACCAT
PIARF2-Rec2-F	gagtggccattatggcccgagATGGGGGTTTTAATCGATCTCA
PIARF2-Rec2-R	gccgacatgtttttcccgagCTAGAGTGCAATATCTAAAAGCGTATCTC
3' AD	AGATGGTGCACGATGCACAG
pHIS2CX-F	TGTGCTGCAAGGCGATTAAG
pHIS2CX-R	CTTCGAAGAAATCACATTAC
PIARF2-6P-F	ttccaggggccctgggatccATGGGGGTTTTAATCGATCTCA
PIARF2-6P-R	gtcacgatgcggcgctcgagCTAGAGTGCAATATCTAAAAGCGTATCTC
6P-CX-F	TGGCGACCATCCTCCAAAAT
6P-CX-R	TTTTCACCGTCATCACCGAAAC
PIARF2-62SK-F	cgcggatccATGGGGGTTTTAATCGATCT
PIARF2-62SK-R	cgggaattcCTAGAGTGCAATATCTAAAAGCGTAT
62SK-F	GGAAGTCATTTTATTTGGAG
62SK-R	GGTGATTTTACGCGTACCGAA
0800-F	AAGTTGGGTAACGCCAGGGT
0800-R	CCAGCGGTTCCATCTTCCAG
PIDOG1-F	ATGGCTACCAACGAAAACCA
PIDOG1-R	TTACTTGTCTCTCCCATAGTGAGA
PIDOG1-SP1	CCAAGAAGGGCAGAAGAAGGAA
PIDOG1-SP2	TATAAGGCGCTGGAGGTTGTCG
PIDOG1-SP3	TTGGATGGTAGGAACAGAAGCG
PIDOG1-SP1II	AGTTGAGTTGGGCAGCAGTGAT
PIDOG1-SP2II	CCAAGAAGGGCAGAAGAAGGAA
PIDOG1-SP3II	AGGTTGTCGCTGTTGGTTGGGT

Table S1 Primer sequence (continue)

Primer names	Primer sequences (5'-3')
PIDOG1-SP1III	GCCATGCTGTCATCATTACTGC
PIDOG1-SP2III	TCTTCAAGAAATCCGACTCGGC
PIDOG1-SP3III	CGTGTCGTGTTTGGGTTTGAGTTT
DOG1-PrYZ-F	AGCATAGGTAGACCGGGTAAACAG
Pro1-F	gacctgcaggcatgcaagcttATGCCACGAACCCACAAAAC
Pro1-R	ttaccctcagatctaccatggTACAAAGAACTCTAGGATATAGAGAGTGATG
Pro2-F	gacctgcaggcatgcaagcttCTTGCATGCCTGCAGGTCTG
Pro2-R	ttaccctcagatctaccatggTACAAAGAACTCTAGGATATAGAGAGTGATG
Pro3-F	gacctgcaggcatgcaagcttAGCATAGGTAGACCGGGTAAACA
Pro3-R	ttaccctcagatctaccatggTACAAAGAACTCTAGGATATAGAGAGTGATG
Pro-pHIS2-F	taatacgactcactataggcggaattccccgggGTTGCTAGTAAGATTGTCCTCCAATACC
Pro-pHIS2-R	tcgcgaacgcgtgagctccccgggGATTCAGACCCGACCT
Pro-0800-F	cgacggatcgcataagcttGTTGCTAGTAAGATTGTCCTCCAATACC
Pro-0800-R	ggccgctctagaactagtgatccGATTCAGACCCGACCT

Note: The lowercase letter is the homologous arm.