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| Table S2. Primers used for transgenic lines and vectors. | |
| primer name | sequence (5’ – 3’) |
| gG-Cas9 vector collection | |
| *gG-Cas9 backbone* | |
| SV40 pBPGUw RP | CACCTTTCTCTTCTTCTTGGGCTTTCAGGAGGCTTGCTTCAAG |
| pBPGUw BB FP | CTGCTTACCCACCCAAAACCAATC |
| pBPGUw BB RP | GATTGGTTTTGGGTGGGTAAGCAG |
| PCas9 BB FP | AATGAATCGTAGATACTGAAAAACCCCGCAAG |
| *gG-**en\_DmC* | |
| SV DmCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCGACAAGAAGTAC |
| DmCas9 RP | TCAGTATCTACGATTCATTTTATCACACCTTCCTCTTCTTG |
| *gG- en\_HsC* | |
| SV HsCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCATGGACAAGAAGTAC |
| HsCas9 RP | TCAGTATCTACGATTCATTTCACACCTTCCTCTTCTTCTTG |
| *gG- en\_dFC* | |
| SV FokI FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGC CAACTTGTGAAGTCTGAAC |
| dCas9 RP | TCAGTATCTACGATTCATTTTATCACACCTTCCTCTTCTTG |
| *gG- en\_dI* | |
| SV dCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCGACAAGAAGTAC |
| dCas9 RP | TCAGTATCTACGATTCATTTTATCACACCTTCCTCTTCTTG |
| *gG- en\_64bO* | |
| SV dCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCGACAAGAAGTAC |
| VP64 RP | TCAGTATCTACGATTCATTTTACAGCATGTCCAGGTC |
| H839A Mut FP | ACGATGTGGCTGCTATCGTGCCTCAG |
| H839A Mut RP | AGTCGGACAGCCGGTTGATGTC |
| N863A Mut FP | AGCGACAAGGCCCGGGGCAAGAGC |
| N863A Mut RP | TCTGGTCAGCACCTTGTTGTC |
| *gG- en\_VPRO* | |
| SV dhsCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCGACAAGAAGTACTCCATTG |
| VPR RP | TCAGTATCTACGATTCATTTCAAAACAGAGATGTGTCGAAGATG |
| *gG- en\_GSO* | |
| SV40 dCas9 FP | CCCAAGAAGAAGAGAAAGGTGGAGGCCAGCGACAAGAAGTACAGCATC |
| SV40 dCas9 RP | GAGGAAGCGGAGGAGGAGGTAGCGGACCTAAGAAAAAGAGGAAGGTG |
| SV40 hPR FP | CCTAAGAAAAAGAGGAAGGTGGCGGCCGCTGGATCCGGACGGGCTAAAAAGTTCAATAAAGTCAGAG |
| XbaI p65 RP | TCAGTATCTACGATTCATTCTAGTAGGAGCTGATCTGAC |
| PG-Cas9 vector collection | |
| attB1 Spok FP | CCAAGTTTGTACAAAAAAGCAGGCTCATTTCGGTGGAAGGTCCTG |
| attB2 Spok RP | CCCACTTTGTACAAGAAAGCTGGGTTTTCAGCCTTAGTAAATAG |
| attB2 BB FP | ACCCAGCTTTCTTGTACAAAGTGGGATAAACGGCCGGCCGAGCTCGCCCGGGGATC |
| Miniwhite RP | GACGCAAGGAGTAGCCGACATATATC |
| Miniwhite FP | GATATATGTCGGCTACTCCTTGCGTC |
| attB1 BB RP | AGCCTGCTTTTTTGTACAAACTTGGATAAACGAATTCTTGAAGACGAAAGGGCCTC |
| PG1-gRNA | |
| pCFD5 Spok FP | GATCAATTGAGATCTGAATTCCATTTCGGTGGAAGGTCCTG |
| tRNA Spok RP | GTCTACACACACTCAAAGCCCTTTCAGCCTTAGTAAATAG |
| Spok tRNA FP | CTATTTACTAAGGCTGAAAGGGCTTTGAGTGTGTGTAGAC |
| pCFD5 Middle RP | CTATAGTGAGTCGTATTACGCGCGCTCACTGGCCGTCGTTTTAC |
| pCFD5 Middle FP | GTAAAACGACGGCCAGTGAGCGCGCGTAATACGACTCACTATAG |
| Spok pCFD5 RP | CAGGACCTTCCACCGAAATGGAATTCAGATCTCAATTGATC |
| PG2-gRNA | |
| pCFD5 Spok FP | GATCAATTGAGATCTGAATTCCATTTCGGTGGAAGGTCCTG |
| HDV gRNA RP | GTTGCCCAGCCGGCGCCAGCGAGGAGGCTGGGACCATGCCGGCCGCACCGACTCGGTGCCAC |
| gRNA HDV FP | GCTGGCGCCGGCTGGGCAACATGCTTCGGCATGGCGAATGGGACTTTTTTGCCTACCTGGAGCCTG |
| pCFD5 Middle RP | CTATAGTGAGTCGTATTACGCGCGCTCACTGGCCGTCGTTTTAC |
| pCFD5 Middle FP | GTAAAACGACGGCCAGTGAGCGCGCGTAATACGACTCACTATAG |
| Spok pCFD5 RP | CAGGACCTTCCACCGAAATGGAATTCAGATCTCAATTGATC |
| PG3-gRNA | |
| pCFD5 Spok FP | GATCAATTGAGATCTGAATTCCATTTCGGTGGAAGGTCCTG |
| HH Spok RP | CGAGCTTACTCGTTTCGTCCTCACGGACTCATCAGGGGCTTTTTCAGCCTTAGTAAATAG |
| HH tRNA FP | TGAGTCCGTGAGGACGAAACGAGTAAGCTCGTCGGGCTTTGAGTGTGTGTAGACATCAAG |
| HDV gRNA RP | GTTGCCCAGCCGGCGCCAGCGAGGAGGCTGGGACCATGCCGGCCGCACCGACTCGGTGCCAC |
| gRNA HDV FP | GCTGGCGCCGGCTGGGCAACATGCTTCGGCATGGCGAATGGGACTTTTTTGCCTACCTGGAGCCTG |
| pCFD5 Middle RP | CTATAGTGAGTCGTATTACGCGCGCTCACTGGCCGTCGTTTTAC |
| pCFD5 Middle FP | GTAAAACGACGGCCAGTGAGCGCGCGTAATACGACTCACTATAG |
| Spok pCFD5 RP | CAGGACCTTCCACCGAAATGGAATTCAGATCTCAATTGATC |
| Generation of gRNAs targeting *phantom* (*phm*) and *disembodied* (*dib*) genes | |
| phm gR1 FP | CGGCCCGGGTTCGATTCCCGGCCGATGCA CGGCGCCTGGTAGGCTCCAT GTTTTAGAGCTAGAAATAGCAAG |
| phm gR1 gRNA RP | ATTTTAACTTGCTATTTCTAGCTCTAAAAC GTAAAGAGCGTGAGTATCAT TGCACCAGCCGGGAATCGAACCC |
| phm TSS -174 FP | TGCA GGTATATATGGTGTGGCATA |
| phm TSS -174 RP | AAAC TATGCCACACCATATATACC |
| phm TSS -423 FP | TGCA GGATGGGCTATCACGGCAAC |
| phm TSS -423 RP | AAAC GTTGCCGTGATAGCCCATCC |
| phm gR2 FPa | TTCGATTCCCGGCCGATGC GGAACCGGAGGAGTTCCGTC GTTTTAGAGCTAGAAATAGC |
| phm gR2 RPa | ATGGAGCCTACCAGGCGCCG TGCACCAGCCGGGAATCGAACCC |
| phm gR2 FPb | CGGCGCCTGGTAGGCTCCAT GTTTTAGAGCTAGAAATAGCAAG |
| phm gR2 RPb | GTAAAGAGCGTGAGTATCAT TGCACCAGCCGGGAATCGAACCC |
| phm gR2 FPc | ATGATACTCACGCTCTTTAC GTTTTAGAGCTAGAAATAGCAAG |
| phm gR2 RPc | CTATTTCTAGCTCTAAAAC GCTTCCACTTGGAACTGCCC TGCACCAGCCGGGAATCGAAC |
| dib 5KO gRNA FP | GCGGCCCGGGTTCGATTCCCGGCCGATGC ACCACGAGGACCCTTTGGAA GTTTTAGAGCTAGAAATAGCAAG |
| dib 5KO gRNA RP | ATTTTAACTTGCTATTTCTAGCTCTAAAAC GTCGGCTCTTGCGATATTGA TGCACCAGCCGGGAATCGAACCC |
| dib TSS -110 FP | TGCA GGAAGTAAACCCTCTCAGGT |
| dib TSS -110 RP | AAAC ACCTGAGAGGGTTTACTTCC |
| dib TSS -482 FP | TGCA GGGAGGAGGAACTGCTCAAA |
| dib TSS -482 RP | AAAC TTTGAGCAGTTCCTCCTCCC |
| dib gR2 FPa | TTCGATTCCCGGCCGATGC AACCACGAGGACCCTTTGGAA GTTTTAGAGCTAGAAATAGC |
| dib gR2 RPa | GCCCGGAATCGGATCCTATT TGCACCAGCCGGGAATCGAACCC |
| dib gR2 FPb | AATAGGATCCGATTCCGGGC GTTTTAGAGCTAGAAATAGCAAG |
| dib gR2 RPb | GTCGGCTCTTGCGATATTGA TGCACCAGCCGGGAATCGAACCC |
| dib gR2 FPc | TCAATATCGCAAGAGCCGAC GTTTTAGAGCTAGAAATAGCAAG |
| dib gR2 RPc | CTATTTCTAGCTCTAAAAC GCTTGCTGCCCACCAATGGT TGCACCAGCCGGGAATCGAAC |
| qPCR primers | |
| phm qPCR FP | GGCATCATGGGTGGATTT |
| phm qPCR RP | CAAGGCCTTTAGCCAATCG |
| dib qPCR FP | GTGACCAAGGAGTTCATTAGATTTC |
| dib qPCR RP | CCAAAGGTAAGCAAACAGGTTAAT |
| rp49 qPCR FP | CGGATCGATATGCTAAGCTGT |
| rp49 qPCR RP | CGACGCACTCTGTTGTCG |
| alas qPCR FP | CCTGCTGAAGCGAGAAGG |
| alas qPCR RP | GAGGGTCTCCGATCTTAATGG |
| Coprox qPCR FP | CCAAGTGAAACAGGAGTGAGG |
| Coprox qPCR RP | AGTCGGGATCCACTTGAGAA |
| FeCH qPCR FP | AACACAAAGTTTTGCAGACTGG |
| FeCH qPCR RP | ATCGCGGTCTTCGGTTTT |
| IRP1A qPCR FP | TCCATCGACAGCAAATATGAGT |
| IRP1A qPCR RP | CCAGCACATGAAAGTTGTCAC |
| spz5 qPCR FP | CAAGTCGACTCCCTACAATGC |
| spz5 qPCR RP | CGACTGAGATCCCTGACCA |
| Nach qPCR FP | CGAGGCCTTTCTGAACACTC |
| Nach qPCR RP | GATGTCCTCCGCCGAATA |