**Supplemental Table 1. Transgenic lines**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Array** | **Promoter** | **cDNA** | **Targeted tissue** | **Injected line 1** | **Transformation markers** |
|  |  |  |  |  |  |
| *sbEx189* | *Pfem-2* | *fem-2* | native | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx190* | *Pfem-2* | *fem-2* | native | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx237* | *Pelt-3* | *fem-2* | d/v epidermis | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx238* | *Pelt-3* | *fem-2* | d/v epidermis | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx239* | *Pceh-16* | *fem-2* | lateral epidermis | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx240* | *Pceh-16* | *fem-2* | lateral epidermis | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx191* | *Pmyo-3* | *fem-2* | muscle | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
| *sbEx192* | *Pmyo-3* | *fem-2* | muscle | *fem-2; fhod-1* | *rol-6, elt-2::GFP::LacZ* |
|  |  |  |  |  |  |
| *sbEx195* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6* |
| *sbEx200* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6* |
| *sbEx201* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6* |
| *sbEx202* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6* |
| *sbEx205* | *Pfhod-1* | *fhod-1a(long)* | native | *fhod-1 let-502* | *rol-6* |
| *sbEx214* | *Pelt-3* | *fhod-1b(short)* | d/v epidermis | *fhod-1 let-502* | *rol-6* |
| *sbEx215* | *Pfhod-1* | *fhod-1a(long)* | native | *fhod-1 let-502* | *rol-6* |
|  |  |  |  |  |  |
| *sbEx242* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx243* | *Pfhod-1* | *fhod-1b(short)* | native | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx244* | *Pfhod-1* | *fhod-1a(long)* | native | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx245* | *Pfhod-1* | *fhod-1a(long)* | native | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx246* | *Pceh-16* | *fhod-1b(short)* | lateral epidermis | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx247* | *Pceh-16* | *fhod-1b(short)* | lateral epidermis | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx248* | *Petlt-3* | *fhod-1b(short)* | d/v epidermis | *fhod-1 let-502* | *rol-6, sur-5::gfp* |
| *sbEx249* | *Petlt-3* | *fhod-1b(short)* | d/v epidermis | *fhod-1 let-502* | *rol-6, sur-5::gfp* |

**1** *fem-2(b245) III; fhod-1(tm2363) I* = HR1438, *fhod-1(tm2363) let-502(sb118) I* = HR 1485

**SUPPLEMENTAL TABLE 2. Primers used in PCR, RT-PCR and CRISPR**

|  |  |  |
| --- | --- | --- |
| **Primer** | **Sequence** | **Restriction sites** |
| oJW1787 | ATTGTGTTCGTTGAGTGACCC |  |
| oJW1790 | AAAAATAGGCGTATCACGAGG |  |
| exon9rev | CCGATTATGGAGTGACCTAcaagacatctcgcaataggagg |  |
| exon9fwd | gTAGGTCACTCCATAATCGGgtttaagagctatgctgg |  |
| Nterm-F | ACGACGACGACACATICACC |  |
| Nterm-R | CTCTCCACCACCACCTICC |  |
| Cterm-F | CAATAAGACACGTGGAAAGATATGG |  |
| Cterm-R | CTCTACGTCGTTGATCTCTTGG |  |
| FhdNR.3 | CACTCTCGTCGGTTTCTTTCG |  |
| Shrt.lF | CCGATTCAGTTGGTTCAGGA |  |
| Shrt.lR | ATTCCCATCGCAACTTTGAA |  |
| Shrt.2F | CTTCGTCTTTGGCTATTCACC |  |
| Shrt.2R | TAGTAGTTIGTTTCGAGCTGTCCA |  |
| Vit2-F | GCCAGAGAACCAGAGAAGCC |  |
| Vit2-R | TGTTGTTGCTGCTCGACCTC |  |
| wGFP-F | GAGTTTGTAACAGCTGCTGGG |  |
| wGFP-R | CCATCTAATTCAACAAGAATTGGG |  |
| fem2-F | tttctgcagATGGAAAAAGTAAACGAGGAGC | *PstI/NotI* |
| fem2-R | tttgcggccgcTTATTCCTCATCAGTGACATCG |
| femPr-F | tttggtaccTTTTTGATCCATTTTTGATTTGATAA | *KpnI/PstI* |
| femPr-R | tttctgcagGTATITITCCAGTTTTAAAACC |
| elt3-F | tttggtaccCGTIAAATGCTCCAATAAAGTTT | *KpnI/PstI* |
| elt3-R | tttctgcagTTGAATTCTGTAACTGAAAATTTG |
| cehl6-F | tttggtaccCCACAAGTTTTTGGCCGA | *KpnI/PstI* |
| cehl6-R | tttctgcagCCCCGCTCTAAGGAAGCT |
| myo2-F | tttggtaccTGTGTGTGATTGCTTTTTCAC | *KpnI/PstI* |
| myo2-R | tttctgcagTGGATCTAGTGGTCGTGG |
| unc54-F | tttgcggccgcGTCCAATTACTCTTC | *Notl/Sacll* |
| unc54-R | tttccgcggGTGTGCGGTTTTTTCTATGATG |
| oRS63 | tttggtaccGACAGACGGGTATTTTTAGGC | *KpnI/XbaI* |
| oRS70 | TGAAAGTAACTGGTCTCATTGG |