|  |  |  |  |
| --- | --- | --- | --- |
| **Table S1. Transgenic gRNA constructs and properties.** | | | |
| **construct** | **gRNA** | **vector** | **characteristics** |
| *disembodied (dib)* | | | |
| *dU6-dibgR1* | 2 (CDS) | pCFD5 | ubiquitous expression, targets CDS |
| *dU6-dibgR2* | 4 (CDS) | pCFD5 | ubiquitous expression, for FokI-based approach (en\_dFC) |
| *PG1-dibgR1* | 2 (CDS) | PG1-gRNA | PG-specific expression, targets same sites as *dU6-dibgR1* |
| *PG2-dibgR1* | 2 (CDS) | PG2-gRNA | PG-specific expression, targets same sites as *dU6-dibgR1* |
| *PG3-dibgR1* | 2 (CDS) | PG3-gRNA | PG-specific expression, targets same sites as *dU6-dibgR1* |
| *dib-TSS-110* | 1 (TSS) | pCFD5 | ubiquitous expression, targets upstream TSS |
| *dib-TSS-482* | 1 (TSS) | pCFD5 | ubiquitous expression, targets upstream TSS |
| *phantom (phm)* | | | |
| *dU6-phmgR1* | 2 (CDS) | pCFD5 | ubiquitous expression, targets CDS |
| *dU6-phmgR2* | 4 (CDS) | pCFD5 | ubiquitous expression, for FokI-based approach |
| *phm-TSS-174* | 1 (TSS) | pCFD5 | ubiquitous expression, targets upstream of TSS |
| *phm-TSS-423* | 1 (TSS) | pCFD5 | ubiquitous expression, targets upstream of TSS |

**Table S1.** In the gRNA column, numbers represent the number of gRNAs used to direct Cas9, brackets indicate whether target region is upstream of TSS (= Transcription Start Site) or in the coding region (CDS = Coding Sequence).