

Tg(per3:luc)g1

Transgene description

The *Tg(per3:luc)g1* transgene contains the firefly *luc* cDNA under control of the *per3* promoter (Kaneko and Cahill, PloS Biol. 3(2): e34).

Genotyping assay

To genotype the *Tg(per3:luc)g1* line, the transgene-specific primers (LUC_05 and LUC_06) are used.

Primers:

LUC_05: 5' CGT TCG TCA CAT CTC ATC TAC CTC C 3'

LUC_06: 5' AGA ATA GGG TTG GCA CCA GCA G 3'

PCR program (60_30_30):

- 1_94°C for 3 min
- 2_94°C for 30 s
- 3_60°C for 30 s
- 4_72°C for 30 s
- 5_Go to step 2 (above) for 34 cycles
- 6_72°C for 5 min
- 7_8.0°C hold
- 8_END

Product size: 381 bp

The 381-bp product is specific for the genomic DNA containing the *Tg(per3:luc)g1* transgene. No PCR product is generated for wild-type genomic DNA.

IMPORTANT NOTE: It is possible that multiple copies of the transgene might have integrated into the genome during transgenesis and that some of these integrations are non-functional. Samples that contain only a non-functional transgene or its fragment will be identified falsely as positive in the genotyping assay. For this reason, it is recommended to use functional assays to verify individuals identified as positive in the genotyping assay.