

## *Tg(UAS:Kaede)rk7*

### **Transgene description**

The *Tg(UAS:Kaede)rk7* transgene contains the Kaede cDNA under control of the UAS promoter. The Kaede cDNA encodes a fluorescent protein from the stony coral *Trachyphyllia geoffroyi* that emits bright green fluorescence after synthesis, but changes efficiently to a bright and stable red fluorescence on irradiation with UV or violet light (Hatta K. et al, Nat. Prot. 1(2):960-967, 2006).

### **Genotyping assay**

To genotype the *Tg(UAS:Kaede)rk7* line, the transgene-specific primers (**KAA\_03** and **KAA\_04**) are used.

#### **Primers:**

**KAA\_03:** 5' ACG GGC ACC AGT TTG TTA TTG 3'

**KAA\_04:** 5' GAC CAT TTG GGG GAA AGT TTA C 3'

#### **PCR program (55\_30\_30):**

- 1\_94°C for 3 min
- 2\_94°C for 30 s
- 3\_55°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: 333 bp**

The 333 bp product is specific for the genomic DNA containing the *Tg(UAS:Kaede)rk7* 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.

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