

C57BL/6J-Tg(Thy1-GCaMP6f)GP5.1Dkim/J

Stock No: 028279

Protocol 28487: Standard PCR Assay - Tg(Thy1-GCaMP)

Version 2.2

Notes

This assay will NOT distinguish hemizygous from homozygous transgenic animals.

The genotyping protocol(s) presented here have been optimized for reagents and conditions used by The Jackson Laboratory (JAX). To genotype animals, JAX recommends researchers validate the assay independently upon receipt of animals into their facility. Reaction cycling temperature and times may require additional optimization based on the specific genotyping reagents used.

Expected Results

Transgene = 248 bp

Internal positive control = 320 bp

JAX Protocol

Protocol Primers

PRIMER	5' LABEL	SEQUENCE 5' → 3'	3' LABEL	PRIMER TYPE	REACTION	NOTE
18911		CAT CAG TGC AGC AGA GCT TC		Transgene Forward	A	
18912		CAG CGT ATC CAC ATA GCG TA		Transgene Reverse	A	
21157		CTC CCA ACC CCA GAG GTA GT		Internal Positive Control Forward	A	
21225		AGA CCC CAG ATC CAG AAA GG		Internal Positive Control Reverse	A	

Reaction A

COMPONENT	FINAL CONCENTRATION
ddH ₂ O	
Kapa 2G HS buffer	1.30 X
MgCl ₂	2.60 mM
dNTP KAPA	0.26 mM
18911	0.50 uM
18912	0.50 uM
21157	0.50 uM
21225	0.50 uM
Glycerol	6.50 %
Dye	1.00 X
Kapa 2G HS taq polym	0.03 U/ul
DNA	

Cycling

STEP	TEMP °C	TIME	NOTE
1	94.0	--	
2	94.0	--	
3	65.0	--	-0.5 C per cycle decrease
4	68.0	--	
5		--	repeat steps 2-4 for 10 cycles (Touchdown)
6	94.0	--	
7	60.0	--	
8	72.0	--	
9		--	repeat steps 6-8 for 28 cycles
10	72.0	--	
11	10.0	--	hold

JAX uses a very high speed Taq (~1000 bp/sec), use cycling times recommended for your reagents.

JAX uses a 'touchdown' cycling protocol and therefore has not calculated the optimal annealing temperature for each set of primers.



