

## B6.Cg-Tg(Rgs4-EGFP)4Lvt/J

Stock No: 007894

Protocol 29498: Standard PCR Assay - Fluorescent Proteins (Generic GFP)

Version 4.2

### 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 = 173 bp

Internal positive control = 324 bp

Separated by gel electrophoresis on a 1.5% agarose gel.

### JAX Protocol

#### Protocol Primers

PRIMER	5' LABEL	SEQUENCE 5' → 3'	3' LABEL	PRIMER TYPE	REACTION	NOTE
oIMR0872		AAG TTC ATC TGC ACC ACC G		Transgene	A	GFP
oIMR1416		TCC TTG AAG AAG ATG GTG CG		Transgene	A	GFP
oIMR7338		CTA GGC CAC AGA ATT GAA AGA TCT		Internal Positive Control Forward	A	
oIMR7339		GTA GGT GGA AAT TCT AGC ATC ATC C		Internal Positive Control Reverse	A	

#### Reaction A

COMPONENT	FINAL CONCENTRATION
ddH2O	
Kapa 2G HS buffer	1.30 X
MgCl <sub>2</sub>	2.60 mM
dNTP KAPA	0.26 mM
oIMR0872	0.50 uM
oIMR1416	0.50 uM
oIMR7338	0.50 uM
oIMR7339	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.

