

GENOTYPING BY PCR PROTOCOL FORM

MUTANT MOUSE REGIONAL RESOURCE CENTER: UC DAVIS

Investigator/PI: MMRRC Address: One Shields Avenue, Davis CA, 95616 Contact: Reneé Araiza

Telephone: 530-754-6677 FAX: 530-757-3284 email: mmrrc@ucdavis.edu

Protocol:

NAME OF PCR STOCK Tg(Rasgrp1-EGFP)14Gsat #30950-UCD

Reagent/ Constituent	Volume (μL)
Water	11.275
10x Buffer	2.5
25 mM MgCl ₂	1.7
5M Betaine	6.5
10 mM dNTPs	0.5
DMSO	0.325
Primer 1 : 30950 F1 –10 μM	0.5
Primer 2 : GFP R3 –10 μM	0.5
Taq Polymerase-5 Units/μl	0.2
DNA Sample	1.0
TOTAL VOLUME OF REACTION:	25 μl

Comments on protocol: Use Touch-Down cycling protocol-first 10 cycles anneal at 60° C decreasing in temperature by 0.5° C; next 10 cycles anneal at 55° C; final 15 cycles anneal at 50° C. *Concentration of MgCl₂ may be adjusted to reduce non-specific banding.

Strategy:

Steps	Temp (°C)	Time (m:ss)	# of Cycles
1. Initiation/Melting	95	1:00	1
2. Denaturation	94	0:20	\
3. Annealing	60 to 50	0:30	> x 35
4. Elongation			
5. Final Extension	72	0:30	/
6. Finish	72	5:00	1
	25	Hold	--

Primers:

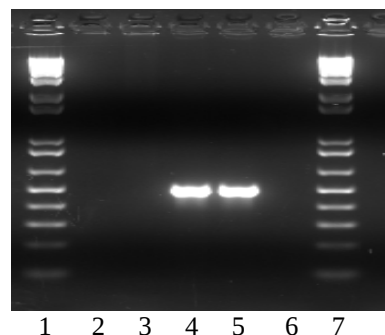
Primer Name	Nucleotide sequence (5'– 3')
1 Rasgrp1 (30950) F1	CATCAACgCCTgTCaggTggTT
2 eGfp R3	ggTCgggggTAgCggCTgAA

Electrophoresis Protocol:

% Agarose: 1.5 Volts : 90

Estimated Running Time (min): 90

Primer Combinations	Band size (bp)	genotype
1 & 2	490	transgenic



Lanes

1 & 7: 1 kb+ ladder (Invitrogen, Cat. #10787-026)

2: H₂O

3: Wild Type Control

4 & 5: Rasgrp1 tg/+

6: Other gensat line