

B6(129S4)-Et(icre/ERT2)14163Rdav/J

Stock No: 012689

Protocol 23077: Standard PCR Assay - Generic iCre

Version 1.3

Notes

Transgene = 236 bp

Internal positive control = 324 bp

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

This assay will NOT distinguish hemizygous from homozygous transgenic animals.

This assay does not work well without the use of a Hotstart Taq polymerase.

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
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	
oIMR9266		AGA TGC CAG GAC ATC AGG AAC CTG		Transgene Forward	A	iCre F
oIMR9267		ATC AGC CAC ACC AGA CAC AGA GAT C		Transgene Reverse	A	iCre R

Reaction A

COMPONENT	FINAL CONCENTRATION
ddH2O	
Kapa 2G HS buffer	1.30 X
MgCl ₂	2.60 mM
dNTP KAPA	0.26 mM
oIMR7338	0.50 uM
oIMR7339	0.50 uM
oIMR9266	0.50 uM
oIMR9267	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.

