EMMA ID: *04561*
Gene: *Bclaf1 / Tg(Nes-cre)1Kln*
Common name: *Bclaf1 x Tg Nescre*
Allele: *Bclaf1 ^{tm1Lfmp} Tg(Nes-cre)1Kln*

Genotyping Information

Genotyping by end-point PCR based on gel is composed of a genespecific short range PCR using primers on wild type allele and a mutant allele-specific short range PCR. The combined results show the genotype of the mice.
For example: mutant positive, wild type positive = Heterozygous.
An additional pcr to confirm the presence or absence of Cre is performed.

PCR primer pairs and expected size bands

Assay	Forward Primer	Reverse Primer	Expected Size Band (bp)
Wildtype	WT-L	WT-U	450; cre-mediated deletion band (WT+loxP-band) 530 bp
Mutant	WT-L	(HO)-GalNeo	550
Cre	Cre1	Cre2	450

Primer sequences

Primer Name	Sequence 5' --> 3'
WT-U	GTGCCTACTTTCCCAGGGCCTCTC
WT-L	GACTCCTGGACCGTGACCGACCTC
(HO)-GalNeo	GGGGGAGGATTGGGAAGACAATAG
Cre1	CCGGGCTGCCACGACCAA
Cre2	GGCGCGGCAACACCATTTTT

PCR setup (Qiagen, Hot Start Plus)

Component	Volume (µl) 1x	Final conc.
DNA (~ 50-100 ng)	2	
Q-Solution (5x)	2,5	0,5
PCR-Buffer (10x)	2,5	1
DNTP mix (10 mM)	0,5	0,2
$MgCl_2$ (25 mM)	1,5	1,5
Primer 1 (10 pmol/µl)	1	0,4
Primer 2 (10 pmol/µl)	1	0,4
Taq Polymerase (5 U/µl)	0,3	0,06
H_2O*	13,7	
Final volume	25	

*** The amount of H_2O is adjusted with the number of primer.**

Amplification conditions Wildtype- /Mutant-Assay

PCR Settings	Temperature (°C)	Time	# of cyles
1 Denaturation (Melting)	95°C	5 min	1
2 Amplification (Melting, Annealing, Polym.)	94°C 62°C 72°C	30 sec 45 sec 45 sec	39
3 Polymerisation	72°C	10 min	1
4 Cooling	12°C	hold	1

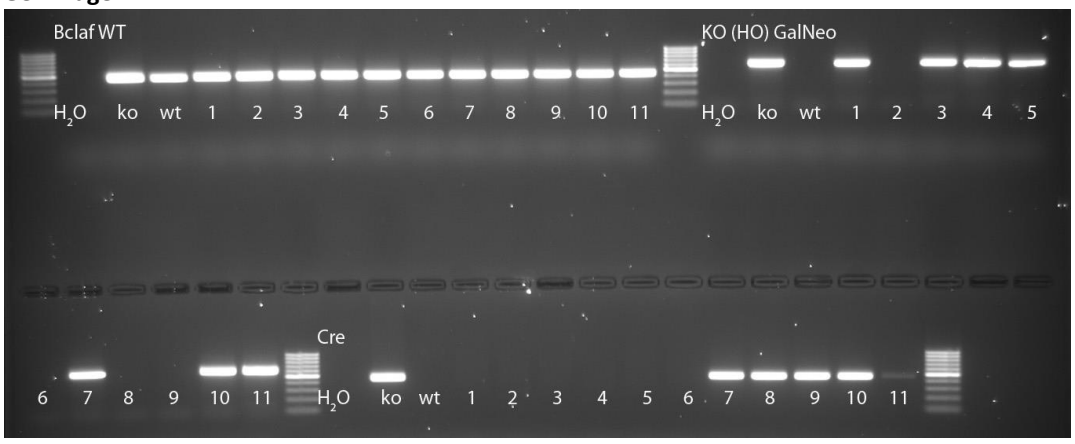
These PCR conditions have been optimized for our methods and preparation kits. Adaptions may be required.

Amplification conditions Cre-Assay

PCR Settings	Temperature (°C)	Time	# of cyles
1 Denaturation (Melting)	95°C	5 min	1
2 Amplification (Melting, Annealing, Polym.)	94°C 58°C 72°C	30 sec 45 sec 45 sec	39
3 Polymerisation	72°C	10 min	1
4 Cooling	12°C	hold	1

These PCR conditions have been optimized for our methods and preparation kits. Adaptions may be required.

Gel Image



Separated by gel electrophoresis on a 2% agarose gel.