



Genotyping protocol

Rcan1

IR00004154 / P4154

(ICS internal reference)

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1. Genotyping protocol and data

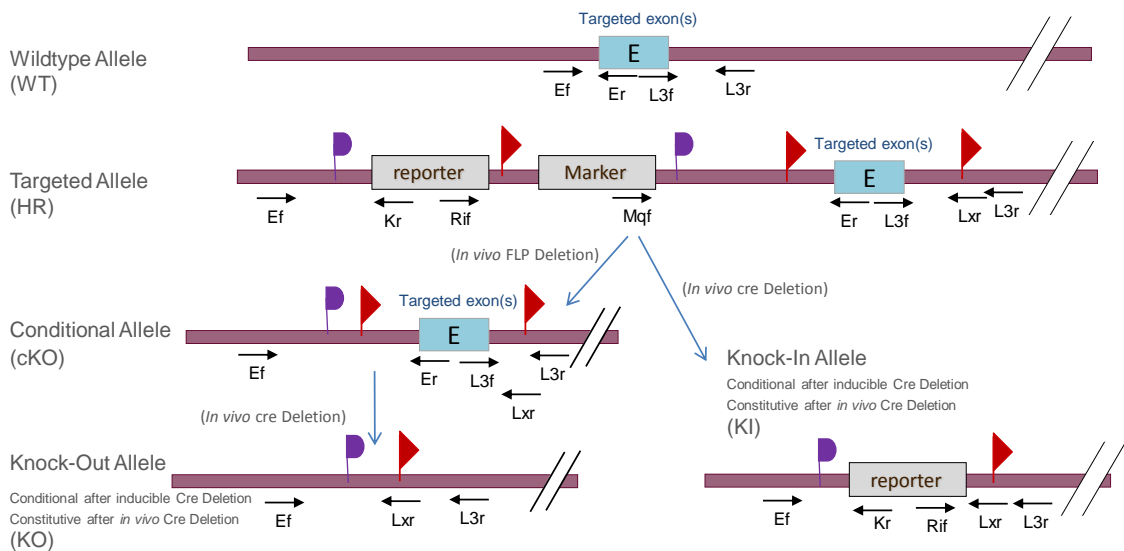
This section describes the condition used at the Mouse Clinical Institute (ICS) to genotype your **Rcan1** Constitutive Knockout / Conditional Knockout (KO-cKO x Cre) project.

1.1. Genotyping strategy

The map below describes the position of the primers used for genotyping for each possible allele.



KO-cKO pc _ Genotyping strategy



Sequence of primers used for genotyping:

Position	Primers	Sequence
Ef	7242	CTCCCTGTAAGGCCATTGTTC
Er	7245	GGGACAAGACTTCCCAAGGAGGTAGTC
Kr	3209	CCAACAGCTTCCCCACAACGG
L3f	7243	GAGATGGTAGCAACCTGTGGGTTTGTG
L3r	7244	CCACCCAGTACGGAAGTAGGAATGACA
Lxr	3255	ACTGATGGCGAGCTCAGACCATAAC
Ri1f	5966	GCACATGGCTGAATATCGACGGT

PCR fragments expected size (bp):

Region analyzed	Primers used	Position on the primer (see the map above)	Targeted allele (HR)	cKO allele (cKO)	KI allele	WildType allele (WT)
5' part of the selection marker	7242-3209	Ef / Kr	299	---	299	---
Presence of the distal loxP	7243-7244	L3f / L3r	205	205	---	200
Distal loxP specific PCR	7243-3255	L3f / Lxr	111	111	---	---
Excision of the selection marker	7242-7245	Ef / Er	7287*	383	---	214
Cre total excision	5966-3255	Ri1f / Lxr	4683*	---	471	---

*: this PCR product will not be observed using our PCR genotyping conditions (see description below)

** : this PCR is only verified if mice are generated

---: no Amplicon should be obtained

1.2. PCR protocol

This section describes the composition of the mix and cycling conditions used for genotyping.

Reagents:	Volume:
- FastStart PCR Master (Roche)	7.5µl
- DNA (50ng/µl)	1.5µl
- 5' primer (100 µM)	0.06µl
- 3' primer (100 µM)	0.06µl
- Sterile H ₂ O	up to 15 µl

Cycling conditions:

Temp	Time	#Cycles
95°C	4min	1
94°C	30s	34
62°C	30s	
72°C	1min	
72°C	7min	1
20°C	5min	1

NB: These PCR conditions have been optimized for high-throughput genotyping. Adaptation to small-scale may be required.

2. Cre and Flp genotyping method

You will find the genotyping protocol in the publication:

[Highly-efficient, fluorescent, locus directed cre and FlpO deleter mice on a pure C57BL/6N genetic background.](#)

Birling MC, Dierich A, Jacquot S, Hérault Y, Pavlovic G.
Genesis. 2012 Jun;50(6):482-9. doi: 10.1002/dvg.20826. Epub 2012 Mar 20.