



## Genotyping protocol

Slc7a11

IR00003903 / E252

(ICS internal reference)

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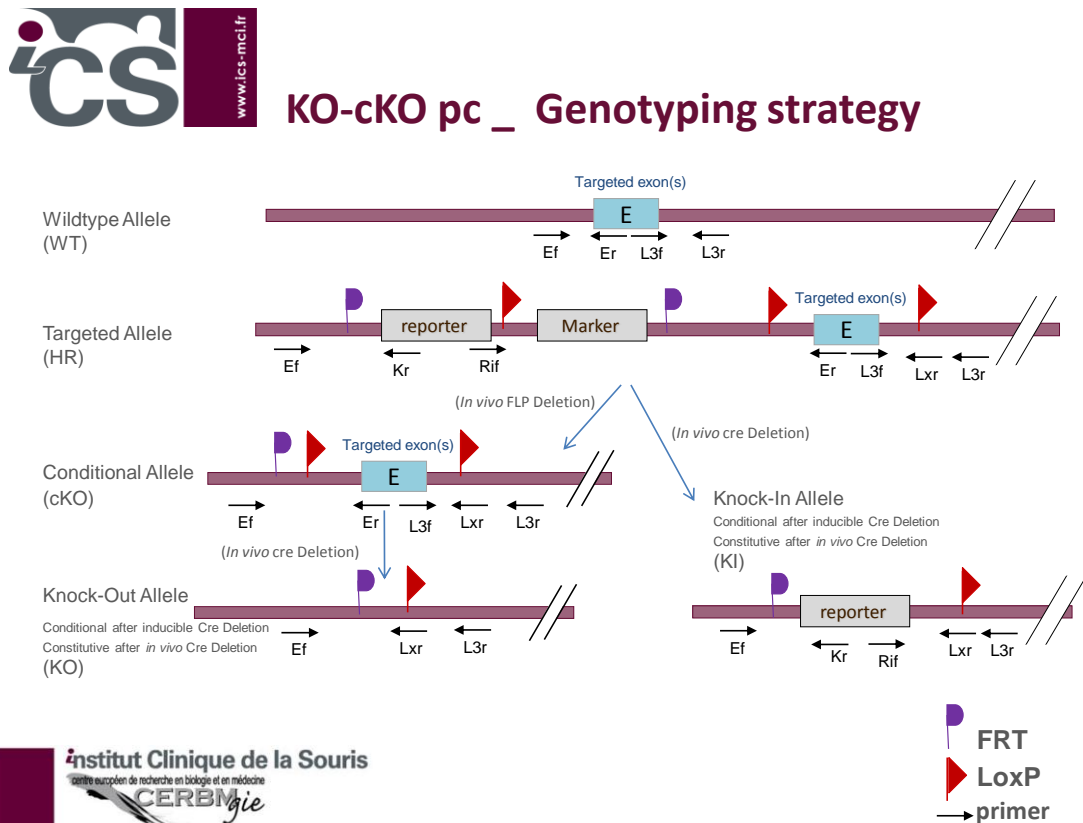
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### 1. Genotyping protocol and data

This section describes the condition used at the Mouse Clinical Institute (ICS) to genotype your **Slc7a11** 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.



## Sequence of primers used for genotyping:

Position	Primers	Sequence
Ef	6736	AACCACAAGAAGGAAGAAAAGCTGA
Er	6740	AATGCCAGGGATATCACAGCAGTAG
Kr	3277	CTCCTACATAGTTGGCAGTGTGGG
L3f	6737	GACGCTACATCCTGGAACCATTTTT
L3r	6738	CAGCATGTAACTTAACCCAGCAC
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)	conditional allele (cKO)	KI allele	WildType allele
5' part of the selection marker	6736-3277	Ef / Kr	287	---	287	---
Presence of the distal loxP	6737-6738	L3f / L3r	512	512	---	457
Distal loxP specific PCR	6737-3255	L3f / Lxr	358	358	---	---
Excision of the selection marker	6736-6740	Ef / Er	7645*	741	---	578
Cre total excision	5966-3255	Ri1f / Lxr	3194*	---	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 <sub>2</sub> O	up to 15 µl

### Cycling conditions:

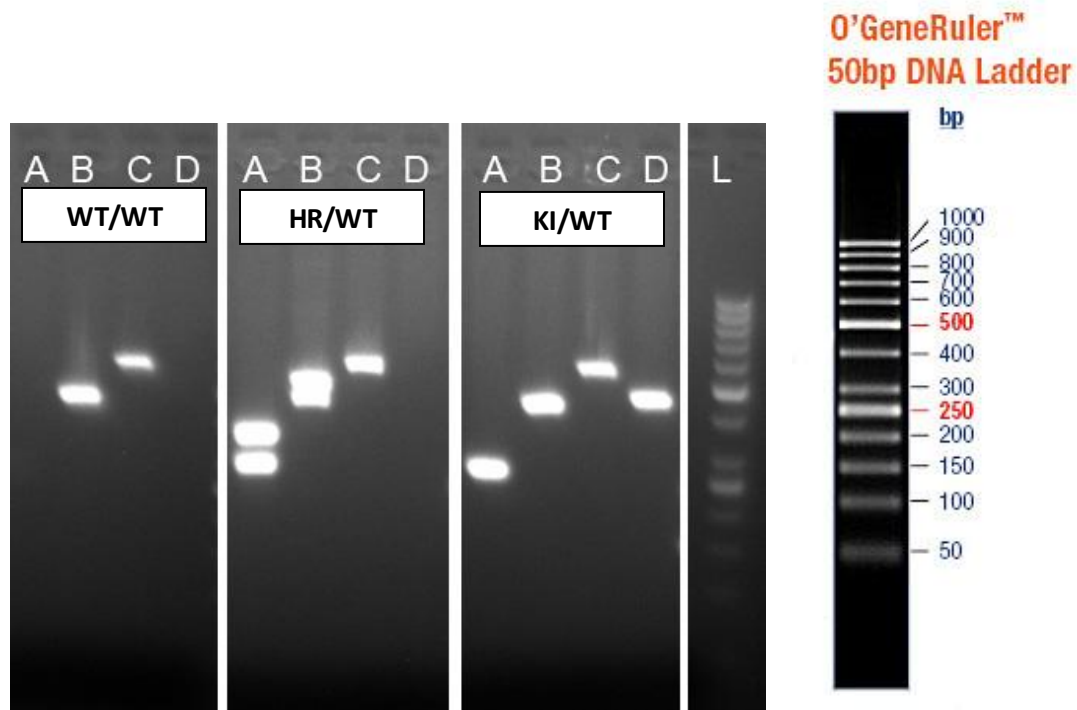
Temp	Time	#Cycles
95°C	4min	1
94°C	30s	34
62°C	30s	
72°C	1min	
72°C	7min	1
20°C	5min	1

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

### 1.3. Picture of genotyping with various alleles

Analysis of PCR products pattern was done by gel electrophoresis 2% agarose (SB buffer).

Representative genotyping picture



- A: Multiplex: 5' part of the selection marker + Distal loxP specific PCR
- B: Presence of the distal loxP
- C: Excision of the selection marker
- D: Cre total excision
- L: O'GeneRuler 50bp DNA Ladder

## 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.