



## Genotyping protocol

Pla2g4f

IR00003190 / E219

(ICS internal reference)

This report has been prepared by:

**Christelle Roth**  
genotyping@igbmc.fr

This report has been validated by:

**Sylvie Jacquot, PhD, Head of Genotyping Service**  
33 (0)3 88 65 57 44  
genotyping @igbmc.fr

The first version of this report was generated the: 17 Apr 2014

For any question, please contact:

**Institut Clinique de la Souris - ICS - Mouse Clinical Institute**  
1 rue Laurent Fries, BP 10142  
67404 Illkirch Cedex, France  
Email: [genotyping@igbmc.fr](mailto:genotyping@igbmc.fr)  
Web site: <http://www-mci.u-strasbg.fr/>

## TABLE OF CONTENTS

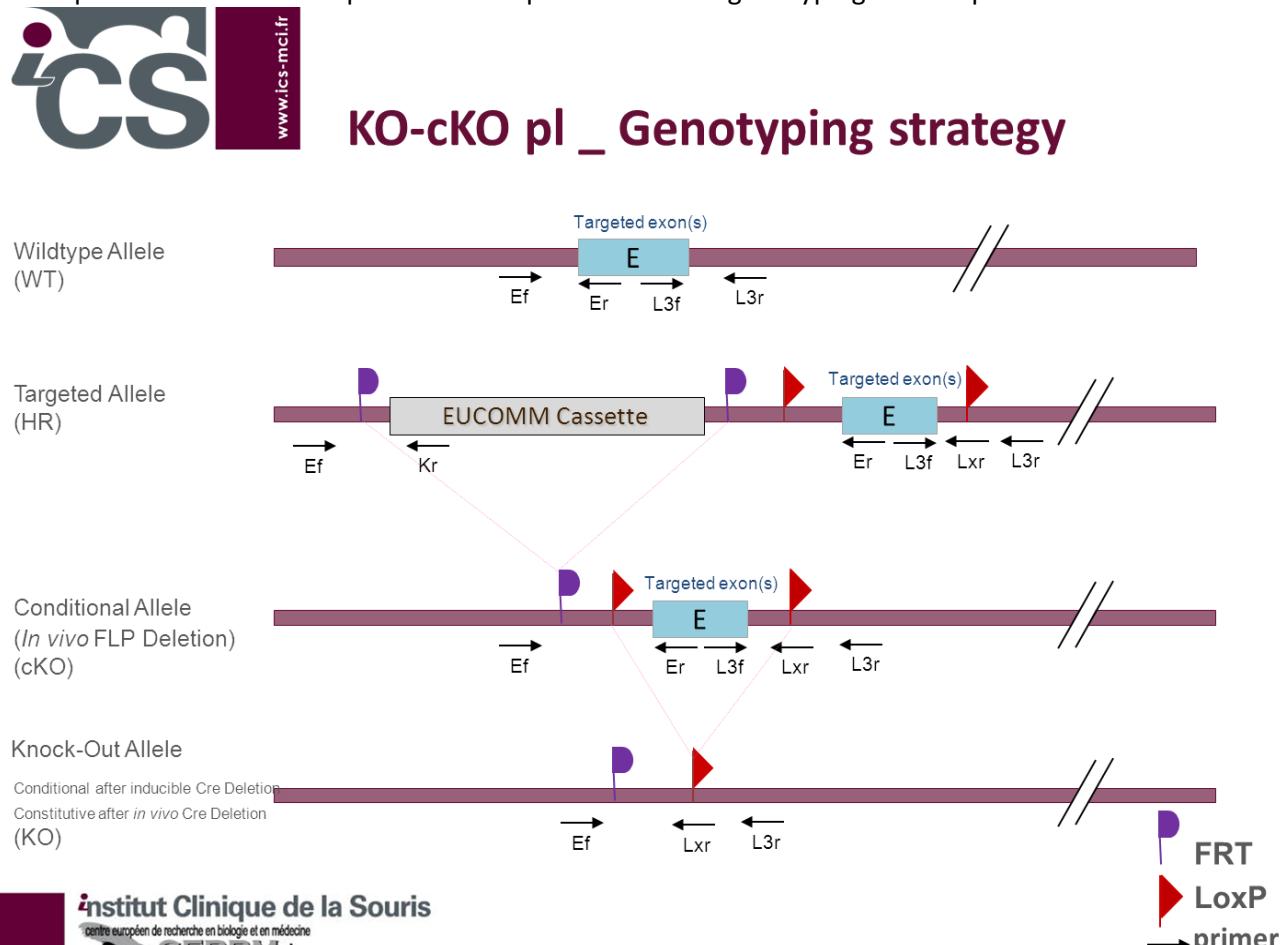
<b>Table of contents .....</b>	<b>2</b>
<b>1. Genotyping protocol and data .....</b>	<b>2</b>
1.1. Genotyping strategy.....	2
1.2. PCR protocol.....	4
<b>2. Cre and Flp genotyping method.....</b>	<b>5</b>

## 1. Genotyping protocol and data

This section describes the condition used at the Mouse Clinical Institute (ICS) to genotype your **Pla2g4f** Constitutive Knockout / Conditional Knockout (KO-cKO) project.

### 1.1. Genotyping strategy

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



1 rue Laurent Fries - 67404 Illkirch Cedex - France - T. 33 (0)3 88 65 56 57 - F. 33 (0)3 88 65 56 90

## Sequence of primers used for genotyping:

Position	Primers	Sequence
Ef	5968	CATTGCCTGTGGTGGTTGCCA
Er	5971	TCTAGACGTGACCTGGGCACTAGGAT
Kr	3278	GGGCAAGAACATAAAGTGACCCTCC
L3f	5972	TGCTCTCTGGAGTAGGGTGGTAGGGT
L3r	5969	TTGATGTGTGGCAACGGGGC
Lxr	3255	ACTGATGGCGAGCTCAGACCATAAC

## PCR fragments expected size (bp):

Region analyzed	Primers used	Position on the primer <i>(see the map above)</i>	Targeted allele (HR)	conditional allele (KO-cKO)	KO allele	WildType allele
5' part of the selection marker	5968-3278	Ef / Kr	458	---	---	---
Presence of the distal loxP	5972-5969	L3f / L3r	243	243	---	178
Distal loxP specific PCR	5972-3255	L3f / Lxr	130	130	---	---
Excision of the selection marker	5968-5971	Ef / Er	7415*	511	---	349

\*: 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:

- FastStart PCR Master (Roche)
- DNA (50ng/ $\mu$ l)
- 5' primer (100  $\mu$ M)
- 3' primer (100  $\mu$ M)
- Sterile H<sub>2</sub>O

Volume:

- 7.5 $\mu$ l
- 1.5 $\mu$ l
- 0.06 $\mu$ l
- 0.06 $\mu$ l
- up to 15  $\mu$ l

Cycling conditions:

Temp	Time	#Cycles
95°C	4min	1
94°C	30s	
62°C	30s	34
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, Héault Y, Pavlovic G.  
Genesis. 2012 Jun;50(6):482-9. doi: 10.1002/dvg.20826. Epub 2012 Mar 20.