



Image from jax.org

# Mouse Strain Datasheet

## Strain Name

Pkd1fl/fl

### MGI Gene ID

MGI:3612341

### Full Allele Name

Pkd1<tm2Ggg>

### Type of Allele

conditional allele

### Human Gene (HGNC)

PKD1

### Genetic Background

C57BL/6J

### Commercial Source

Jax Mice

### Stock Number

10671

### Link

<https://www.jax.org/strain/010671>

### Genotyping Protocol

<https://www.jax.org/Protocol?stockNumber=010671&protocolID=23613>

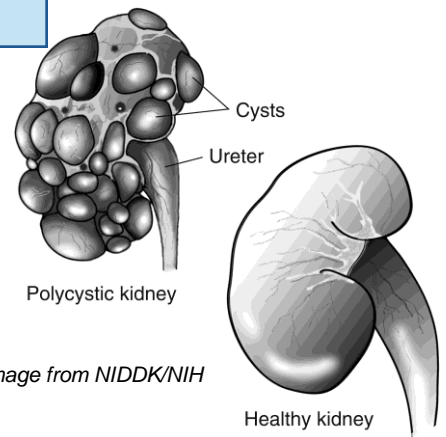


Image from NIDDK/NIH

### Strain Details

These mice possess loxP sites on either side of exons 2 through 4 of the targeted gene. Mice that are homozygous for this allele are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. When these mutant mice are bred to mice that express Cre recombinase, resulting offspring will have exons 2 through 4 deleted in the cre-expressing tissue(s)

### Validation or publication

<https://pubmed.ncbi.nlm.nih.gov/15579506/>

### Contact Name

Patricia Outeda, Stephen Parnell

### Email

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## PCR Protocol for Genotyping:

Pkd1fl/fl

### A. Digestion of mouse tail or ear notch, and **embryo tail (in red)**:

1. Add 100µL of Tissue Digestion Buffer and 2µL of Proteinase K per tail (~1-2mm length). For embryos tail add **50µL of Tissue Digestion Buffer and 1µL of Proteinase K**. Make sure tail is immersed in the buffer.
2. In a thermocycler incubate at 55°C for 1 h followed by 95°C for 8 min to inactivate the enzyme and hold at 10°C. For embryos incubate at 55°C for 30 min followed by 95°C for 8 min and hold at 10°C.
3. Vortex and store at 4°C (-20°C for long storage) or use immediately to set up the PCR.

### B. PCR Genotyping Protocol

Primers			
F4 forward	5'-	CCT GCC TTG CTC TAC TTT CC	-3'
R5 back	5'-	AGG GCT TTT CTT GCT GGT CT	-3'
	5'-		-3'
	5'-		-3'

PCR Reaction		PCR Conditions		
BioMix (Bioline)	10.0 µL		Heated Lid	105°C
Primers (@10 µM each)	0.8 µL		Initial Denaturation	94°C 5 min
			Number of Cycles	x35
ddH <sub>2</sub> O	7.2 µL		94°C	20 sec
			56°C	35 sec
DNA template	2.0 µL		72°C	35 sec
Total Volume	20.0 µL		Final Extension	72°C 10 min
			Final Hold	10°C

PCR Product Size (bp)	
Wild type band	180 bp
LoxP band	250bp

### C. Reagents

Reagent	Cat #	Final Concentration	Working Concentration
<b>Tissue Digestion Buffer for ear notch or tail</b>			
Tris pH8.5		50mM	
EDTA		1mM	
Tween20		0.5%	
<b>Proteinase K (Invitrogen)</b>	25530-015	20mg/mL	
<b>BioMix (Bioline)</b>	BIO-25012		



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# Mouse Strain Datasheet

## Strain Name

Pkhd1/Cre

**MGI Gene ID**

n/a

**Full Allele Name**

Tg(Pkhd1-cre)1lgr

**Type of Allele**

Cre

**Human Gene (HGNC)**

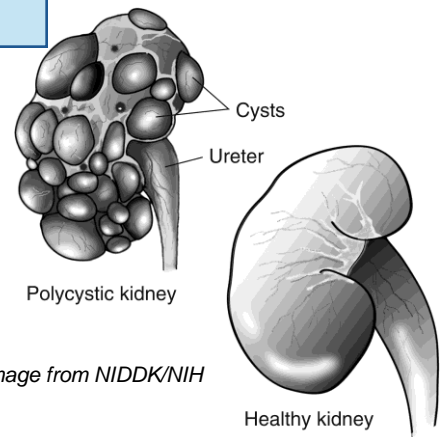
n/a

**Genetic Background**

C57BL/6J

**Commercial Source**

UTSW O'Brien Kidney Center



**Stock Number**

Pkhd1Cre

**Link**

[https://utsw.corefacilities.org/service\\_center/show\\_external/3550?name=utsw-o-brien-kidney-center-animal-models-core](https://utsw.corefacilities.org/service_center/show_external/3550?name=utsw-o-brien-kidney-center-animal-models-core)

**Genotyping Protocol**

<https://pubmed.ncbi.nlm.nih.gov/18263604/>

### Strain Details

Pkhd1/Cre mice mediate Cre/loxP recombination in late embryonic/postnatal renal collecting ducts, the ureter, and intrahepatic bile ducts.

### Validation or publication

<https://pubmed.ncbi.nlm.nih.gov/18263604/>

**Contact Name**

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**Email**

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## PCR Protocol for Genotyping:

Pkhd1/Cre

### A. Digestion of mouse tail or ear notch, and **embryo tail (in red)**:

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3. Vortex and store at 4°C (-20°C for long storage) or use immediately to set up the PCR.

### B. PCR Genotyping Protocol

Primers			
Pkhd1 Forward	5'-	TCTGTCTCAACATAACTCATTG	-3'
Cre Reverse (this is a generic Cre prim	5'-	TCGACCAGTTTAGTTACCC	-3'
	5'-		-3'
	5'-		-3'

PCR Reaction		PCR Conditions		
BioMix (Bioline)	10.0 µL		Heated Lid	105°C
Primers (@10 µM each)	0.8 µL		Initial Denaturation	94°C 5 min
			Number of Cycles	x35
ddH <sub>2</sub> O	7.2 µL		94°C	20 sec
			60°C	35 sec
			72°C	35 sec
DNA template	2.0 µL		Final Extension	72°C 10 min
Total Volume	20.0 µL		Final Hold	10°C

PCR Product Size (bp)	
Wild type band	NA
Cre (specific for Pkhd1-Cre)	~800 bp

### C. Reagents

Reagent	Cat #	Final Concentration	Working Concentration
<b>Tissue Digestion Buffer for ear notch or tail</b>			
Tris pH8.5		50mM	
EDTA		1mM	
Tween20		0.5%	
<b>Proteinase K (Invitrogen)</b>	25530-015	20mg/mL	
<b>BioMix (Bioline)</b>	BIO-25012		