*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

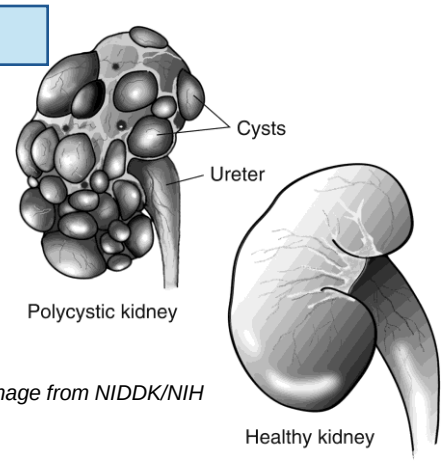


*Image from NIDDK/NIH*

**Stock Number** 10671

**Link** https://www.jax.org/strain/010671

**Genotyping Protocol** https://www.jax.org/Protocol?stockNumber=010671&protocolID=23613

**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** pgarcia@som.umaryland.edu, sparnell@kumc.edu

# 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 | |
| $_{dd}H_2O$ | 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 |
|---|---|---|---|
| | | | |
| **Tissue Digestion Buffer for ear notch or tail** | | | |
| Tris pH8.5 | | 50mM | |
| EDTA | | 1mM | |
| Tween20 | | 0.5% | |
| **Proteinase K (Invitrogen)** | 25530-015 | 20mg/mL | |
| **BioMix (Bioline)** | BIO-25012 | | |

*Image from jax.org*

# Mouse Strain Datasheet

## Strain Name

R26CreER

**MGI Gene ID** n/a

**Full Allele Name** Gt(ROSA)26Sor<tm1(cre/ERT)Nat>

**Type of Allele** Cre (TMX-inducible)

**Human Gene (HGNC)** n/a

**Genetic Background** C57BL/6J

**Commercial Source** Jax Mice

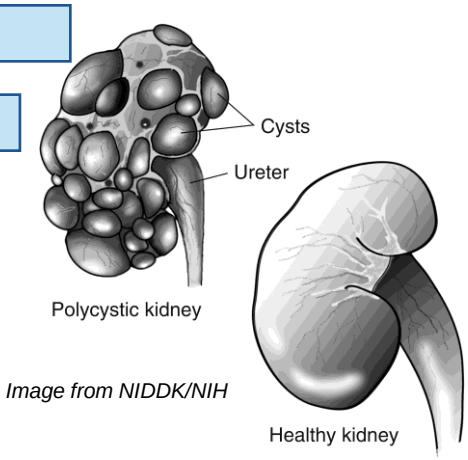


*Image from NIDDK/NIH*

**Stock Number** 004847

**Link** https://www.jax.org/strain/004847

**Genotyping Protocol** https://www.jax.org/Protocol?stockNumber=004847&protocolID=31150

**Strain Details**

These R26CreER mutant mice have a tamoxifen-inducible Cre-mediated recombination system driven by the endogenous mouse Gt(ROSA)26Sor promoter. When crossed with a strain containing a loxP site-flanked sequence of interest, this mutant is useful for generating tamoxifen-induced, Cre-mediated targeted deletions.

**Validation or publication**

https://pubmed.ncbi.nlm.nih.gov/12657690/

**Contact Name** Stephen Parnell

**Email** sparnell@kumc.edu

# PCR Protocol for Genotyping: R26CreER

## 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 | | | |
|---|---|---|---|
| ROSA Common Forward | 5'- | AAAGTCGCTCTGAGTTGTTAT | -3' |
| Cre Rev (this is a generic Cre primer) | 5'- | TCTTGCGAACCTCATCACTC | -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 | |
| $_{dd}H_2O$ | 7.2 µL | | | 94°C | 20 sec |
| | | | | 60 °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 | NA |
| Cre (specific for RosaCreERT2) | ~350 bp |
| | |

## C. Reagents

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