



Image from jax.org

Mouse Strain Datasheet

Strain Name

Pkhd1^{Δ67}

MGI Gene ID

na

Full Allele Name

Type of Allele

Mutant

Human Gene (HGNC)

PKHD1

Genetic Background

C57BL/6J

Commercial Source

n/a

Stock Number

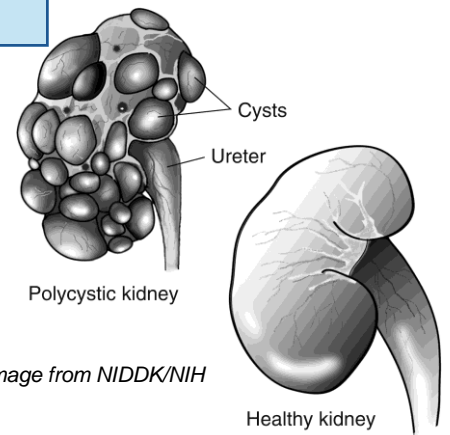
n/a

Link

n/a

Genotyping Protocol

<https://pubmed.ncbi.nlm.nih.gov/28729032/>



Strain Details

Exon 67 was removed by cre-mediated recombination using the B6.129S4-Meox2tm1(cre) Sor line. The protein product is predicted to lack CTS and ICD sequence. This mutant Pkhd1 doesn't have liver, pancreatic or kidney cyst after 1 year.

Validation or publication

<https://pubmed.ncbi.nlm.nih.gov/28729032/>

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PCR Protocol for Genotyping:

Pkhd1^{Δ67}

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			
Pkhd1-1F	5'-	GTGGAATTAGTATGGAA CATGTGTTG	-3'
Pkhd1-1R	5'-	GAA ATC CAT ATC ACA GCC AAG GCC	-3'
Pkhd1-2R	5'-	CAT TTG CCT AGG AAT TTC GTG	-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 ₂ O	7.2 μL		94°C	20 sec
			56°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	188 bp
Flox band	320 bp
Mutant ?67 band	268 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		