



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

Stock Number

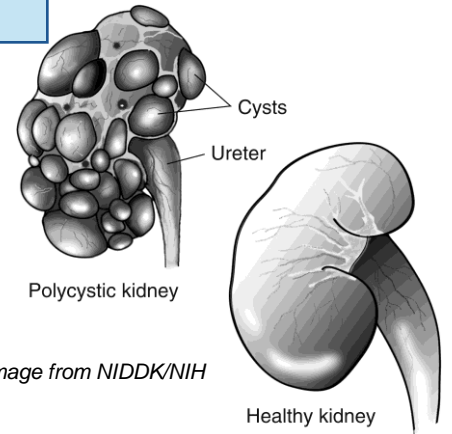
004847

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/>

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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
ddH ₂ 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 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		