



Image from jax.org

# Mouse Strain Datasheet

## Strain Name

Rosa

**MGI Gene ID**

MGI:104735

**Full Allele Name**

Gt(ROSA)26Sor<tm1Sor>

**Type of Allele**

Conditional, Reporter

**Human Gene (HGNC)**

n/a

**Genetic Background**

C57BL/6J

**Commercial Source**

Jax Mice

**Stock Number**

3474

**Link**

<https://www.jax.org/strain/003474>

**Genotyping Protocol**

<https://www.jax.org/Protocol?stockNumber=003474&protocolID=29915>

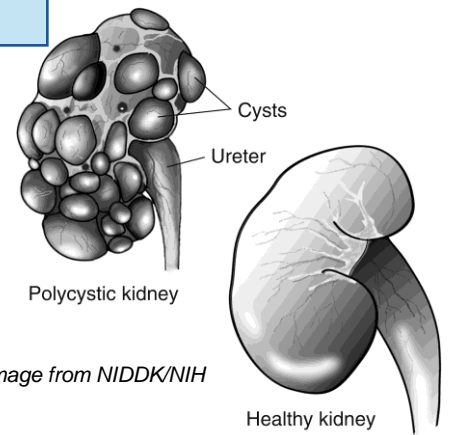


Image from NIDDK/NIH

## Strain Details

These Gt(ROSA)26Sortm1Sor targeted mutant mice carry a loxP flanked neo cassette upstream of a  $\beta$ -galactosidase (lacZ) sequence. Removal of the neo cassette by cre recombination results in lacZ expression in cre-expressing tissues of the offspring. These mutant mice may be used as a Cre-reporter strain to test the tissue/cellular expression pattern of cre expressing mice.

## Validation or publication

<https://pubmed.ncbi.nlm.nih.gov/9916792/>

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## PCR Protocol for Genotyping:

Rosa

### 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			
IMR0883	5'-	AAA GTC GCT CTG AGT TGT TAT	-3'
IMR0315	5'-	GCG AAG AGT TTG TCC TCA ACC	-3'
IMR0316	5'-	GGA GCG GGA GAA ATG GAT ATG	-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
			67°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	550 bp
Rosa band	300 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		