



Image from jax.org

# Mouse Strain Datasheet

## Strain Name

HoxB7/Cre

MGI Gene ID

n/a

Full Allele Name

Tg(Hoxb7-cre)13Amc/J

Type of Allele

Cre

Human Gene (HGNC)

n/a

Genetic Background

C57BL/6J

Commercial Source

Jax Mice

Stock Number

004692

Link

<https://www.jax.org/strain/004692>

Genotyping Protocol

<https://www.jax.org/Protocol?stockNumber=004692&protocolID=22886>

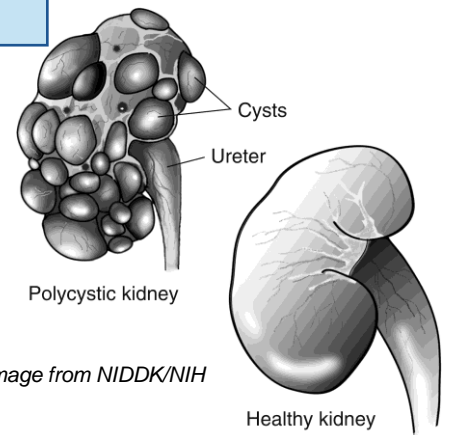


Image from NIDDK/NIH

## Strain Details

Mice hemizygous for the transgenic insert are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. Homozygotes are not viable. These transgenic mice express the Cre recombinase under the control of the mouse homeobox B7 enhancer and promoter. Recombination closely patterns the endogenous gene expression. Cre recombinase expression is detected in the mesonephric duct as early as embryonic day 9.5, in the ureteric bud by embryonic day 10.25 and in all ureteric bud epithelial cells by embryonic day 12.5. Low levels of expression are detected in the dorsal root ganglia and the spinal cord. When crossed with a strain containing a loxP site flanked sequence of interest, Cre-mediated recombination results in deletion of the flanked sequence in the mesonephric duct and its developmental derivatives (the Wolffian duct, the collecting duct

## Validation or publication

<https://pubmed.ncbi.nlm.nih.gov/12399320/>

Contact Name

Email

## PCR Protocol for Genotyping:

## HoxB7/Cre

### 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			
oIMR2098	5'-	GGTCACGTGGTCAGAAGAGG	-3'
oIMR2099	5'-	CTCATCACTCGTTGCATCGA	-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
			°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 Hoxb7-Cre)	~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		