Image from jax.org

Mouse Strain Datasheet

Strain Name

5HT6mCherry-IA-G-GECO

MGI Gene ID n/a

Full Allele Name

Type of Allele reporter

Human Gene (HGNC) n/a

Genetic Background C57BL/6J

Commercial Source n/a

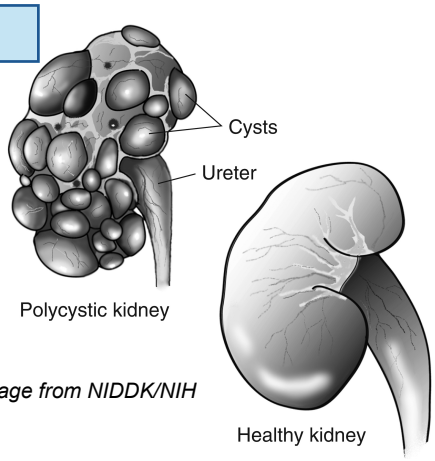

Image from NIDDK/NIH

Stock Number n/a

Link n/a

Genotyping Protocol attached

Strain Details

These mice express a transgene expressing 5HT6-mCherry-G-GECO1.0 fusion protein to measure Ca2+ changes in cilia throughout the mouse.

Validation or publication

https://pubmed.ncbi.nlm.nih.gov/24056873/

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PCR Protocol for Genotyping: 5HT6mCherry-IA-G-GE

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			
forward	5'-	gacaaggacggggatgggacg	-3'
reverse	5'-	ctacttcgctgtcatcatttg	-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	
mutant	400 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		