

Wellcome Trust Sanger Institute Wellcome Trust Genome Campus Hinxton Cambridge CB10 1SA, U.K.

MGPgenotyping@sanger.ac.uk www.sanger.ac.uk

# Sirt3 (MDCL EPD0496\_2\_F10)

Allele: Sirt3 tm1a(EUCOMM)Wtsi

## **Genotyping Information**

These mice may be genotyped through a combination of separate PCR reactions that detect *LacZ*, the gene-specific wild type allele, and a mutant allele-specific short range PCR. Interpretation of the consolidated results produces the genotype of the mice.

For example: LacZ positive, mutant positive, wild type positive = heterozygous.

#### PCRs primer pairs and expected size bands

PCR type	Forward primer	Reverse primer	Expected size band (bp)
Mutant PCR	Sirt3_47264_F	CAS_R1_Term	108
Wild type PCR	Sirt3_47264_F	Sirt3_47264_R	449
LacZ PCR	LacZ_2_small_F	LacZ_2_small_R	108

### Primer sequences

Primer name	Primer sequence (5' > 3')		
CAS_R1_Term	TCGTGGTATCGTTATGCGCC		
Sirt3_47264_F	ATCCAGCCACTCTGCCATTC		
Sirt3_47264_R	AAGCTCACCTTCTGGGCTTG		
LacZ_2_small_F	ATCACGACGCGCTGTATC		
LacZ_2_small_R	ACATCGGGCAAATAATATCG		

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#### Reaction

Reagent	μΙ
DNA (~50-100 ng)	1.0
10x Buffer	2.0
MgCl <sub>2</sub> (50 mM)	0.6
PtTaq (Platinum® Taq (Invitrogen))	0.2
dNTPs (100 mM)	0.2
Primer 1 (10 μM)	0.4
Primer 2 (10 μM)	0.4
$H_20$	<u>15.2</u>
Total	20.0

## Cycling conditions

Wild type and mutant PCRs

-				
		Cycle		
	5 min	1	94 °C	5 min
94 °C	30 sec	2	94 °C	30 sec
	30 sec	3		30 sec
72 °C	45 sec	4	72 °C	30 sec
	- 34 cycles	5		· 34 cycles
	5 min	6	72 °C	5 min
12 °C	forever	7	12 °C	forever
	94 °C 94 °C 58 °C 72 °C Go to '2' + 72 °C 12 °C	94 °C 30 sec 58 °C 30 sec 72 °C 45 sec Go to '2' + 34 cycles 72 °C 5 min	94 °C 5 min 1   94 °C 30 sec 2   58 °C 30 sec 3   72 °C 45 sec 4   Go to '2' + 34 cycles 5   72 °C 5 min 6	94 °C 5 min 1 94 °C   94 °C 30 sec 2 94 °C   58 °C 30 sec 3 60 °C   72 °C 45 sec 4 72 °C   Go to '2' + 34 cycles 5 Go to '2' + 72 °C   72 °C 5 min 6 72 °C

LacZ PCR

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