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# Zfyve20 (MDTY EPD0519\_3\_A09)

Allele: Zfyve20<sup>tm1a(EUCOMM)Wtsi</sup>

### **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	Zfyve20_42318_F	CAS_R1_Term	187
Wild type PCR	Zfyve20_42318_F	Zfyve20_42318_R	280
LacZ PCR	LacZ_2_small_F	LacZ_2_small_R	108

#### Primer sequences

Primer name	Primer sequence (5' > 3')	
CAS_R1_Term	TCGTGGTATCGTTATGCGCC	
Zfyve20_42318_F	CCTGACCCCCATTTTGAGA	
Zfyve20_42318_R	GGGTGGCTCACACCTTTACT	
LacZ_2_small_F	ATCACGACGCGCTGTATC	
LacZ_2_small_R	ACATCGGGCAAATAATATCG	

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Last updated: 06/07/2012



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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)) dNTPs (100 mM)	0.2
Primer 1 (10 μM)	0.4
Primer 2 (10 μM)	0.4
H <sub>2</sub> 0	15.2
<b>Total</b>	<b>20.0</b>

## **Cycling conditions**

Wild type and mutant PCRs		LacZ PCR			
Cycle			Cycle		
1	94 °C	5 min	1	94 °C	5 min
2	94 °C	30 sec	2	94 °C	30 sec
3	58 °C	30 sec	3	60 °C	30 sec
4	72 °C	45 sec	4	72 °C	30 sec
5		+ 34 cycles	5		+ 34 cycles
6	72 °C	5 min	6	72 °C	5 min
7	12 °C	forever	7	12 °C	forever

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