

GENOTYPING PROTOCOL

MUTANT MOUSE RESOURCE & RESEARCH CENTER: UC DAVIS

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530-754-MMRRC

Protocol Name: CR1122 Spata46 exdel

MMRRC: 42212-UCD

Protocol: GoTaq® Long PCR Master Mix(Promega)

Reagent/Constituent	Volume (µL)
Water	5.6
GoTaq® Long PCR Master Mix,2X	7.5
Primer 1. (stock concentration is 20µM) comF	0.6
Primer 2. (stock concentration is 20µM) wtR	1.2
Primer 3. (stock concentration is 20µM) mutR	0.3
DNA (example) extracted w/ "Qiagen DNeasy columns or other similar silica based kits"	1.5
TOTAL VOLUME OF REACTION:	15.00 µL

Comments on protocol:

- Protocol may work with other DNA extraction methods.

Strategy:

Steps	Temp (°C)	Time (m:ss)	# of Cycles
1. Initiation/Melting HOT START? <input type="checkbox"/>	94	2:00	1x
2. Denaturation	94	0:10	
3. Annealing steps 2-3-4 cycle in sequence	65 (↓1°C/cycle)	0:30	10x
4. Elongation	68	2:00	
5. Denaturation	94	0:15	
6. Annealing steps 5-6-7 cycle in sequence	55	0:30	25x
7. Elongation	68	2:00 (↑20sec/cycle)	
8. Finish	4	∞	n/a

Primers:

Name	Nucleotide Sequence (5' - 3')	Argarose: 1.5%	V: 90
1. CR_1700015E13Rik-comF	GCTGGAAAAGTGGTTCATTGGTG	Estimated Running:Time: 90 min.	
2. CR_1700015E13Rik-wtR	CAGACACTTTCAGCCACGTCCTC	Primer Combination	Band (bp)
3. CR_1700015E13Rik-mutR	TGGTGACAGCACACCTCAAATGG	1 & 2, 1 & 3	553,1411
		1 & 3	209
			wildtype
			mutant

Electrophoresis Protocol:

Allele Description: Exon 2 [ENSMUSE00000346300](#) and flanking splicing regions were constitutively deleted from the 1700015E13Rik gene [ENSMUST0000056991.5](#) using CRISPR Cas9 gene editing technology in mouse zygotes. Subsequent founders were backcrossed to C57BL6/N to produce sequence confirmed heterozygous animals.

