

EMMA ID: *EM:14898*

Gene: *Omd*

Common name: *Omd-em1_1*

Allele: *Omd^{em1(IMPC)Hmgu}*

Allele Information

For more information on production, guides and mutation, search for gene/project, go to project summary, go to production plan, go to production outcome and "more details"

<https://www.gentar.org>

IMPC mouse phenotype data, search by the gene name

<http://www.mousephenotype.org/>

Genotyping Information

Genotyping by end-point PCR based on gel is composed of a genespecific short range PCR using primers on wild type allele and a mutant allele-specific short range PCR. The combined results show the genotype of the mice. For example: mutant positive, wild type positive = Heterozygous. In addition to the expected product, the mutant assay may also amplify the endogenous wild type sequence, which will appear as a larger band on an agarose gel. The presence of this extra band will depend on the size of the original deletion.

PCR primer pairs and expected size bands

Assay	Forward Primer	Reverse Primer	Expected Size Band (bp)
Wild type	Omd_F2	Omd_R2	413
Mutant	Omd_F2	Omd_R2	396

Primer sequences

Primer Name	Sequence 5' --> 3'
Omd_F2	AGCTTTGCCCATGCTTCCT
Omd_R2	GAATGTGCATTGGAATAATTGGG

Polymerase All Taq

Use Omd_F2+Omd_R2 for genotyping if you want to sequence.

Omd for1 GACATATTATTCTAAATTTACA
Omd rev1 ATACATAAGTGATGAAGGCAATC

Use Omd_for1+Omd_rev1 for geneotyping if you want to go for restriction analysis with BstZ171.

PCR setup (Qiagen, Hot Start Plus)

Component	Volume (µl) 1x	Final conc.
DNA (~ 50-100 ng)	2	
Q-Solution (5x)	2,5	0,5
PCR-Buffer (10x)	2,5	1
DNTP mix (10 mM)	0,5	0,2
MgCl ₂ (25 mM)	1,5	1,5
Primer 1 (10 pmol/µl)	1	0,4
Primer 2 (10 pmol/µl)	1	0,4
Primer 3 (10 pmol/µl)	1	0,4
Taq Polymerase (5 U/µl)	0,3	0,06
H ₂ O*	12,7	

Final volume

25

* The amount of H₂O is adjusted with the number of primer.

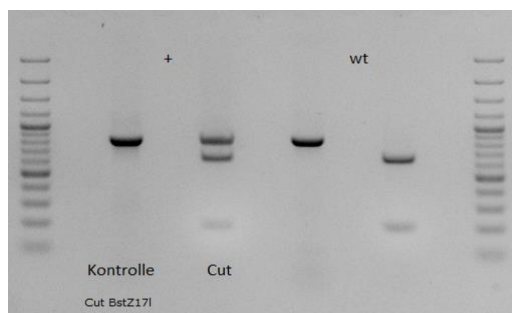
Amplification conditions

PCR Settings	Temperature (°C)	Time	# of cycles
1 Denaturation (Melting)	95°C	5 min	1
2 Amplification (Melting, Annealing, Polym.)	94°C 65-55 TD 72°C	30 sec 45 sec 45 sec	39
3 Polymerisation	72°C	10 min	1
4 Cooling	4°C	hold	1

Touch-Down cycling protocol: first 10 cycles anneal at 65°C, decreasing 1°C per cycle, next 30 cycles anneal at 55°C.

These PCR conditions have been optimized for our methods and preparation kits. Adaptions may be required.

Gel Image



+ het control

Cut with BstZ17I shows two Bands of
239bp and 657bp only for wt

Separated by gel electrophoresis on a 2% agarose gel.