

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

# Cmtm4 (MDLQ EPD0495\_1\_A04)

Allele: Cmtm4<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    | Cmtm4_108292_F | CAS_R1_Term x  | 174                     |
| Wild type PCR | Cmtm4_108292_F | Cmtm4_108292_R | 253                     |
| LacZ PCR      | LacZ_2_small_F | LacZ_2_small_R | 108                     |

#### Primer sequences

| Primer name    | Primer sequence (5' > 3') |  |  |
|----------------|---------------------------|--|--|
| CAS_R1_Term    | TCGTGGTATCGTTATGCGCC      |  |  |
| Cmtm4_108292_F | AGCCTACGGCAGCTTAGTCA      |  |  |
| Cmtm4_108292_R | GTGGGTCACTGGGTTTCATC      |  |  |
| LacZ_2_small_F | ATCACGACGCGCTGTATC        |  |  |
| LacZ_2_small_R | ACATCGGGCAAATAATATCG      |  |  |

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

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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 <sub>2</sub> 0                   | <u>15.2</u> |
| Total                              | 20.0        |

## 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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