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|-------------|---------------------------|
| Gene symbol | <i>Atrn</i> ^{mv} |
|-------------|---------------------------|

| primer | Sequence(5'-3') | Size | target gene | accession |
|--------------------------|--|-------|-------------|-------------|
| EST13-117 rAtrm-mv-12 | TGCATCCTGTAAGCCAATTT TGCAGGTGCAGGTAAGACAG | 528bp | <i>Atrn</i> | NM_031351.1 |
| EST13-117 EST13-113 | TGCATCCTGTAAGCCAATTT GCAGGCCAGGTCTATGTGTA | 576bp | <i>Atrn</i> | NM_031351.1 |
| comment | detection of mutant allele:EST13-117&rAtrm-mv-26 detection of wild allele: EST13-117&EST13-113 6.914-bp deletion including the whole exon 1 of the attractin (<i>Atrn</i>) gene in MV rats | | | |

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|----------------|---|----------|--------|-----------|-------|-----------------|
| PCR condition | | | | | | |
| Taq polymerase | BIOTAQTM HS DNA Polymerase (Bioline Reagents Ltd., UK) | | | | | |
| Thermal cycler | PC-808(ASTEC) | | | | | |
| PCR buffer | Ampdirect Plus | | | | | |
| | first denature | denature | anneal | extension | cycle | final extension |
| PCR | °C | 94 | 94 | 60 | 35 | 72 |
| | min | 3 | 0.5 | 1 | | 0.75 |
| comment | PCR method; Blood was applied to FTA®card (GE Healthcare UK Ltd.,UK) and dried. 1.5mm FTA disc was removed from the bloody-stained region on FTA®card. Untreated sample discs were placed directly in 15 µ L PCR mixture containig 1 × Ampdirect®Plus, 0.2 µ M each primer and 0.4 units of BIOTAQTM HS DNA Polymerase. | | | | | |

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|---|-----------|-------------|--|
| Electrocataphoresis ;4% agarose gel 300V, 30min | | | |
| Primer | EST13-117 | EST13-117 | |
| | EST13-113 | rAtrm-mv-12 | |
| Size | 576 bp | 528 bp | |
| mv/mv | + | - | |
| mv/+ | + | + | |
| +/+ | - | + | |
| Strain harboring mutation | MV/Opu | | |