### Supplementary Method S1: Standard TAIL-PCR program

| Primer          | Temperature [°C] | Time [sec] | Cycles |
|-----------------|-----------------|------------|--------|
| pMDC99-TR1      | 94              | 60         | 1      |
|                 | 94              | 30         | 5      |
|                 | 59              | 60         |        |
|                 | 72              | 150        |        |
|                 | 94              | 30         |        |
|                 | 25              | 180        | 1      |
| Degenerated Primer.1 | gradient 25 → 70 | 180 |        |
|                 | 72              | 150        |        |
|                 | 94              | 30         |        |
|                 | 65              | 60         | 15     |
|                 | 72              | 150        |        |
|                 | 94              | 30         |        |
|                 | 65              | 60         |        |
|                 | 72              | 150        |        |
|                 | 94              | 30         |        |
|                 | 40              | 60         |        |
|                 | 72              | 150        |        |
|                 | 72              | 300        | 1      |
| pMDC99-TR2      | 94              | 60         |   1   |
|                 | 94              | 30         |        |
|                 | 65              | 60         |        |
|                 | 72              | 150        |        |
|                 | 94              | 30         | 12     |
| Degenerated Primer.1 | 65          | 60         |        |
|                 | 72              | 150        |        |
|                 | 94              | 30         |        |
|                 | 40              | 60         |        |
|                 | 72              | 150        |        |
|                 | 72              | 300        | 1      |
| pMDC99-TR3      | 94              | 60         | 1      |
|                 | 94              | 45         | 20     |
|                 | 40              | 60         |        |
|                 | 72              | 150        |        |
|                 | 72              | 300        | 1      |