

Table S1. Primers Used to Amplified Exon 1-5 of *AR* Gene.

| Exon | Forward Primer (5' – 3') | Reverse Primer (5' – 3') | Amplicon Size |
|-------------|---------------------------------|---------------------------------|----------------------|
| 1.A | AAGATTCAAGCTCAAAG | GATACTGCTCCTGCTG CTG | 629 |
| 1.B | GCTGACCTTAAAGACATCTG | CAGAGCCAGTGAAAGTTG | 579 |
| 2 | GCAGGTTAATGCTGAAGACC | ACCTTCACTGCCTAAATTGC | 458 |
| 5 | CACTGTCACCCCACACC | TAGCTCAACCCGTCACTACC | 285 |
| 7 | TCAGATCGGATCCAGCTATC | TTGGCTCTATCAGGCTGTTC | 417 |
| 8 | AGGTTGGGAAGAGGCTAGC | GCAGTGCAGAGGAGTAGTGC | 320 |

Table S2. Master Mixture for Four Different Ready-To-Use PCR Kits.

| PCR Kit | Mixture |
|--|---|
| MyTaq HS Red Mix 2x (BioLine) | 12,5 µl MyTaq HS Red Mix 2x 1µl (10µM) of each primers Mili Q water up to 25 µl |
| FastStart Taq DNA Polymerase, dNTPack (Roche) (standard mixture) | 2,5 µl PCR reaction buffer 10x concentration with 20mM MgCl ₂ 5 µl GC-Rich Soution 5x concentration 0,5 µl (10mM) dNTP solution 0,2 µl (5U/µl) Taq DNA Polymerase 1µl (10µM) of each primers Mili Q water up to 25 µl |
| FastStart Taq DNA Polymerase, dNTPack (Roche) (2xTaq, 2x dNTPs mixture) | 2,5 µl PCR reaction buffer 10x concentration with 20mM MgCl ₂ 5 µl GC-Rich Soution 5x concentration 1 µl (10mM) dNTP solution 0,5 µl (5U/µl) Taq DNA Polymerase 1µl (10µM) of each primers Mili Q water up to 25 µl |
| KAPA2G fast PCR Kit 2X (Kapa Biosystem) | 12,5 µl 2X KAPA2G Fast ReadyMix (with 1,5 mM MgCl ₂) 1µl (10µM) of each primers Mili Q water up to 25 µl |
| KOD FX Neo (Toyobo) | 12,5 µl 2x PCR Buffer for KOD FX Neo 5 µl (2mM) dNTPs 1µl (1U/µl) KOD FX Neo 1µl (10µM) of each primers Mili Q water up to 25 µl |

Table S3. Touch-Down PCR Program.

| | Temperature | Duration | Annotation |
|-----------------|--------------------|-----------------|--|
| Initial PCR | 95°C | 5 minutes | |
| Denaturation | 95°C | 1 minutes | |
| Annealing | 68°C * | 1 minutes | *Lower annealing temperature by 1°C at every cycle for the first 10 cycles to 59°C |
| Extension | 72°C | 1 minutes | |
| Denaturation | 95°C | 1 minutes | |
| Annealing | 58°C# | 1 minutes | #Repeated for 20 cycles once annealing temperature reach 58°C |
| Extension | 72°C | 1 minutes | |
| Final Extension | 72°C | 5 minutes | |