

Locus	Primer sequence (5' – 3')		Annealing temperature	Size of fragment (bp)	
Alleles					
<i>E1</i> <sup>1)</sup>	F	CACTCAAATTAAGCCCTTTCA	60 °C	<i>e1-as</i>	222
<i>e1-as/e1-nl</i>	R	TTCATCTCCTCTTCATTTTTGTTG		<i>e1-nl</i>	no products
<i>E3</i> <sup>2)</sup>	E3_08557FW	TGGAGGGTATTGGATGATGC	58 °C	<i>E3</i>	558
<i>E3/e3-tr</i>	E3Ha_1000RV	CGGTCAAGAGCCAACATGAG		<i>e3-tr</i>	275
	e3tr_0716RV	GTCCTATACAATTCTTTACGACG			
<i>E4</i> <sup>3)</sup>	F	AGACGTAGTGCTAGGGCTAT	55 °C	<i>E4</i>	1,229
<i>E4/e4-SORE-1</i>	R2	GCATCTCGCATCACCCAGATCA		<i>e4-SORE-1</i>	837
	R3	GTCATCCCTTCGAATTCAG			

**Additional file 5. Primers, PCR conditions and expected amplified fragment sizes for allele-specific DNA markers.**

1, 3) Xu et al. [29], 2) Tsubokura et al. [18]