

Genetic diversity, variety identification and gene detection in some Egyptian grape varieties by SSR and SCoT markers

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Table S1. PCR results statics as revealed by SCoT markers among the 7 grape varieties.

PN	PS (5'-3')	TA	MA	PA	%P	PIC
SCoT-01	ACGACATGGCGACCACGC	22	4	18	81.80%	0.0636
SCoT-02	ACCATGGCTACCACCGGC	13	4	9	69.20%	0.0425
SCoT-03	ACGACATGGCGACCCACA	18	5	13	72.20%	0.062
SCoT-04	ACCATGGCTACCACCGCA	11	2	9	81.80%	0.0443
SCoT-05	CAATGGCTACCACTAGCG	14	1	13	92.90%	0.0167
SCoT-06	CAATGGCTACCACTACAG	12	1	11	91.70%	0.0222
SCoT-08	ACAATGGCTACCACTGAG	17	1	16	94.10%	0.0311
SCoT-09	ACAATGGCTACCACTGCC	16	5	11	68.80%	0.0545
SCoT-10	ACAATGGCTACCACCAGC	15	6	9	60.00%	0.0578
SCoT-12	CAACAATGGCTACCACCG	16	3	13	81.20%	0.0408
SCoT-13	ACCATGGCTACCACGGCA	12	4	8	66.70%	0.0417
SCoT-14	ACCATGGCTACCAGCGCG	16	1	15	93.80%	0.0425
SCoT-16	CCATGGCTACCACCGGCA	16	1	15	93.80%	0.0399
SCoT-17	CCATGGCTACCACTACCC	19	1	18	94.70%	0.0364
SCoT-19	CCATGGCTACCACCGGCG	15	8	7	46.70%	0.0578
SCoT-20	CAACAATGGCTACCACGC	9	2	7	77.80%	0.0195
SCoT-21	CCATGGCTACCACCGGCC	16	4	12	75.00%	0.0562
SCoT-22	CCATGGCTACCACCGCAC	13	5	8	61.50%	0.0425
SCoT-23	CATGGCTACCACCGGCC	19	4	15	78.90%	0.0451
SCoT-24	CCATGGCTACCACCGCAG	19	4	15	78.90%	0.0451
SCoT-25	ACGACATGGCGACCGCGA	12	4	8	66.70%	0.0443
SCoT-27	ACCATGGCTACCACCGTC	14	6	8	57.10%	0.0653
SCoT-28	CAACAATGGCTACCACCA	16	3	13	81.20%	0.0434
SCoT-29	CAACAATGGCTACCACCC	12	4	8	66.70%	0.0451
Total	-	362	83	279	77.10%	-
Average	-	15	3.5	11.6	-	0.0442

Primers name (PN), primers sequences (PS), total number of amplicons (TA), monomorphic amplicons (MA), polymorphic amplicons (PA) , percentage of polymorphism (%P) , polymorphism information content (PIC).

Table S2. PCR results statics as revealed by SSR markers among the 7 grape varieties.

PN	FS (5'-3')	RS (5'-3')	TA	MA	PA	%P	PIC
SSR-06	ATCTCTAACCCCTAAAACCAT	CTGTGCTAAGACGAAGAAGA	9	1	8	88.90%	0.15
SSR-07	AGAGTTGCGGAGAACAGGAT	CGAACCTTCACACGCTTGAT	9	0	9	100.00%	0.07
SSR-08	TAACAAACAAGAAGAGGAAT	AGCACATCCACAACATAATG	13	1	12	92.30%	0.17
SSR-17	TGACTCGCCAAAATCTGACG	CACACATATCATCACCACACGG	9	3	6	66.70%	0.18
SSR-21	GGTTGTCTATGGAGTTGATGTTGC	GCTTCAGTAAAAAGGGATTGCG	14	1	13	92.90%	0.15
SSR-24	GTGGATGATGGAGTAGTCACGC	GATTTTAGGTTTCATGTTGGTGAAGG	8	3	5	62.50%	0.14
SSR-27	GTACCAGATCTGAATACATCCGTAAGT	ACGGGTATAGAGCAAACGGTGT	11	1	10	90.90%	0.11
Total	-	-	73	10	63	86.30%	-
Average	-	-	10.4	1	9	-	0.14

Primers name (PN), Forward Sequence (FS), Reverse Sequence (RS), total number of amplicons (TA), monomorphic amplicons (MA), polymorphic amplicons (PA), percentage of polymorphism (%P) and polymorphism information content (PIC) as revealed by SSR markers among the 7 grape varieties.

Table S3. Similarity table for grape varieties constructed from the SCoTs, SSRs and Combined data using UPGMA and similarity matrices computed according to Dice coefficient.

Var.	SCoT							SSR							Combined							
	ES	T	F	RG	SO4	R	DR	ES	T	F	RG	SO4	R	DR	ES	T	F	RG	SO4	R	DR	
ES	100%							100%							100%							
T	85%	100%						69%	100%						83%	100%						
F	77%	78%	100%					64%	78%	100%					75%	78%	100%					
RG	74%	77%	84%	100%				55%	62%	79%	100%				71%	75%	83%	100%				
SO4	62%	65%	70%	70%	100%			53%	50%	55%	55%	100%			61%	63%	67%	68%	100%			
R	62%	64%	66%	67%	83%	100%		54%	61%	59%	59%	69%	100%		61%	64%	65%	66%	80%	100%		
DR	68%	66%	66%	65%	72%	74%	100%	54%	54%	52%	48%	58%	66%	100%	66%	65%	64%	63%	70%	73%	100%	

Early Superior(ES),Thompson(T),Flame(F),Red Globe(RG),Ramsey(R), Dog Ridge (DR),varieties (var.)