RAPD

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(/ / :   / / :   )

(RAPD)

DNA   **PCR**   .

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.

.   **UPGMA**

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(/)   .

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r = /   .

RAPD   .

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:

(Mozaffarian, 2005;   *Cerasus vulgaris*

.Webster & Looney, 1996)

Cerasus   Prunoideae   (Rosaceae)

.   (Section)   *Cerasus*   *Prunus*

P. cerasus L.   *P. avium* L.   *Prunus cerasus* L.

E-mail: zzamani@ut.ac.ir   :   :   *

P. *fruticosa*

Eucerasus

Prunus .

$2n = 4x = 32$

$(2n = 2x = 16)$

(Dirlewanger et al., $(2n = 4x = 32)$

.2007; Webster & Looney, 1996)

.

Morellos

Amarelles

Kentish

(Webster &

.Looney, 1996)

$(Duke\ cherry)$

$(2n=4x=32)$

.

P. gondouinii

(Dirlewanger et al.,

.2007; Webster & Looney, 1996)

P. mahaleb L.

$(2n = 2x = 16)$

.

Mahalab Eucerasus

.(Webster & Looney, 1996)

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.(FAO, 2007)

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(Schmidt et

.al., 1985)

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DNA

RAPDs AFLPs SSRs
(Gerlach & Stosser, 1998; Struss et al., 2003; Tavaud et al., 2001; Wunch & Hormaza, 2002)
RAPD .
(Williams et al.,

1990)

RAPD .

(Weeden

RAPD .et al., 1992)

.

$(Besnard\ et\ al.,\ 2001)$
$(Sarkhosh\ et\ al.,\ 2006)$ $(Oraguzie\ et\ al.,\ 2001)$
. ... $(Zhongping,\ 2007)$

(Gerlach & Stosser, 1998; RAPD
.Moreno & Trujillo, 2005; Lisek et al., 2006)
RAPD

Cherry

.(Cai et al., 2007)

...   :

nm   nm

DNA   )

.   (   ) DNA   (Outgroup

TIB   RAPD   .

MOLBIOL

Taq DNA   .

(dNTPs)   polymerase

MgCl₂   (   ) PCR   (   )

.

μl   .(   )   (   )

mM MgCl₂ / mM X   PCR   DNA

Taq   / μM dNTPs /   .   (1980) Murray & Thompson

.   DNA   ng   DNA

	NBDK₁₉
	NBSC₁
	NBSC₂
	HMSC₁
	HMSC₂
	HMSC₃
	NVSC₁
	NVSC₂
	NVSC₃
	CHSC₁
	CHSC₂
	CHSC₃
	HTSC₁
	HTSC₂
	HTSC₃
	HTSC₄
	HTSC₅
	HTSC₆
	HTSC₇
	HTSC₈
	HTSC₉
	HTSC₁₀
	NBDKD
	NBSCH
	NBDKM
	NBDKB
	HDZSC₁
	HDZSC₂
	HDDK₁
	HDML

PCR

TIBM $^{\circ}C$ $^{\circ}C$

BE13 $^{\circ}C$ $^{\circ}C$

.(　) TIBM BE4 $^{\circ}C$

Bio-Rad

(　) . PCR . (i-Cycler)

NBDK$_{19}$ (/)

HTSC$_5$.

/

(　) TBE

HMSC$_2$ (/) .

HMSC$_3$ / μg/l

(/) NBDK$_{19}$.

HTSC$_3$ (/) UV DNA

. HTSC$_5$.

/

. .

NTsys (Ver 2.02)

$r = /$.

. UPGMA

/ .

. NBDK$_{19}$) DNA

NBDK$_{19}$ $($NBSC$_1$

TIB MOLBOIL

. .

$($HDDK$_1$)

. DNA .

CHSC$_3$.

$($NBDKB$)$

/ / .

. ──────────────────

. CHSC$_3$ 1. Tris Boric Acid EDTA
2. Gel document, UVP
3. Dice
NBDKM) 4. Unweighted Paired Group Method Using
Arithmetic Average

... :

RAPD

		5 →
/	TGC TCG GCT C	TIBMBA-02
/	GTG CGA GAA C	TIBMBA-03
/	GGA CGA CCG T	TIBMBA-06
	TCG GGA GTG G	TIBMBA-14
/	TCA CGT GGC T	TIBMBB-03
/	CTT CGG TGT G	TIBMBB-13
	ACA CCG TGC C	TIBMBB-17
	ACA GTA GCG G	TIBMBC-02
/	GAG GCG ATT G	TIBMBC-05
	GTC ATG CGA C	TIBMBC-09
	AAC GTC GAG G	TIBMBC-10
/	CCT GGC ACA G	TIBMBC-13
/	CTG GTG CTC A	TIBMBC-16
/	CCC AAG GGA A	TIBMBE 04
/	GGG AAG CGT C	TIBMBE 08
/	TCG GTG AGT C	TIBMBE 13
/	GGG AAA AGC C	TIBMBE-17

/	/	/

$NVSC_3$. (/) NBDKD

. / (

$NVSC_1$ / .

. $NVSC_2$

$NVSC_2$ $NVSC_1$

$NVSC_3$

. .

$HMSC_3$ $HMSC_2$ /

. (/)

. .

. $NBDK_{19}$

$HMSC_1$ . .

$HMSC_3$ $HMSC_2$.

. $HMSC_1$

$NVSC_1$ $CHSC_2$ $CHSC_1$ $HMSC_1$

$NVSC_2$

.

$HTSC_7$ $HTSC_6$ (/) $CHSC_2$ $CHSC_1$

$HDZSC_2$ $HDZSC_1$ $HTSC_{10}$ $HTSC_9$ $HTSC_8$ $NVSC_2$ $HMSC_1$

( )

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(/) .

NBDKD $HTSC_9$ $HTSC_8$

NBDKM . $HTSC_{10}$ $HTSC_6$

$HTSC_1$ . . $HTSC_{10}$ $HTSC_7$

$HTSC_4$ $HTSC_3$ $HTSC_2$ $HDZSC_2$ $HDZSC_1$

. $HTSC_5$. (/)

. (/) HTSC2 HTSC3 $HDZSC_2$

. NBDKB

$CHSC_3$ $HDZSC_1$

.

. NBSCH NBDKD

$CHSC_2$ / $CHSC_1$ $CHSC_3$. /

...   :

                                                HDDK₁   .   /

           .

     .
                          (2007) Cai et al.   (   ) NBDKD
  %   %
                                                                                          .
               (   )
                              RAPD   .
                                                                              .

                                .   HMSC₂
        (2006) Lisek et al.   RAPD   HDZSC₁   HTSC₉   HTSC₈   HMSC₃
                                 /   .   HDZSC₂

      RAPD   .
   .   .
           RAPD
                              (2005) Moreno & Trujillo
                                                                                              .

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Gerlach & Stosser .   RAPD
                                (1998)
                                          Bellini   .
                      .   RAPD   (1997) et al.,
      RAPD   (*Prunus   salicina*)
                                                                        (*P. domestica*)
                                                                  .
                                                      (*P. armeniaca*)
                                                              (*P. persica*)
                              .   .

                                          Cerasus
                                  (2007) Cai et al.   RAPD
                                                                  .
                    .

Coefficient of Similarity

RAPD

.   UPGMA
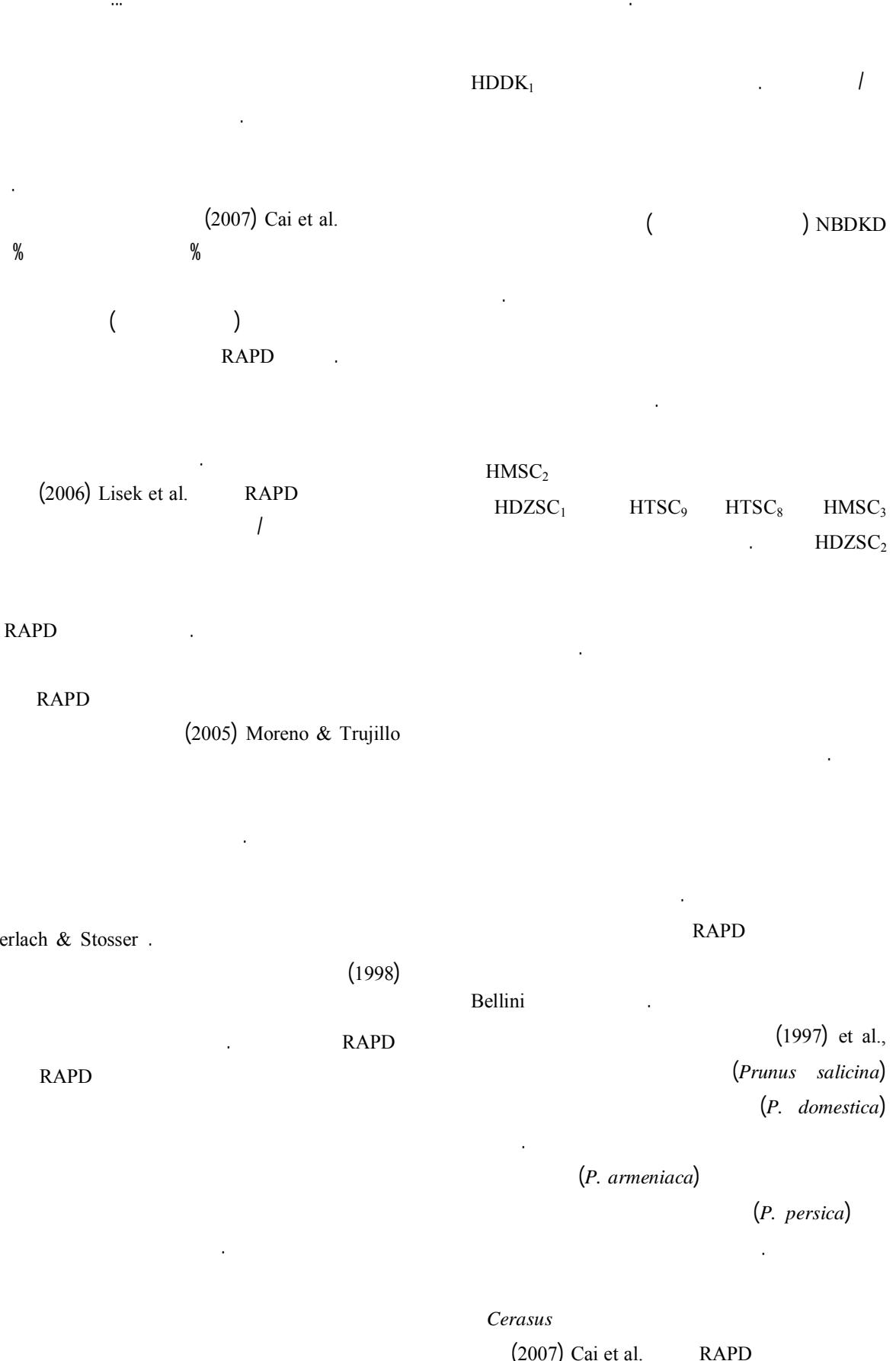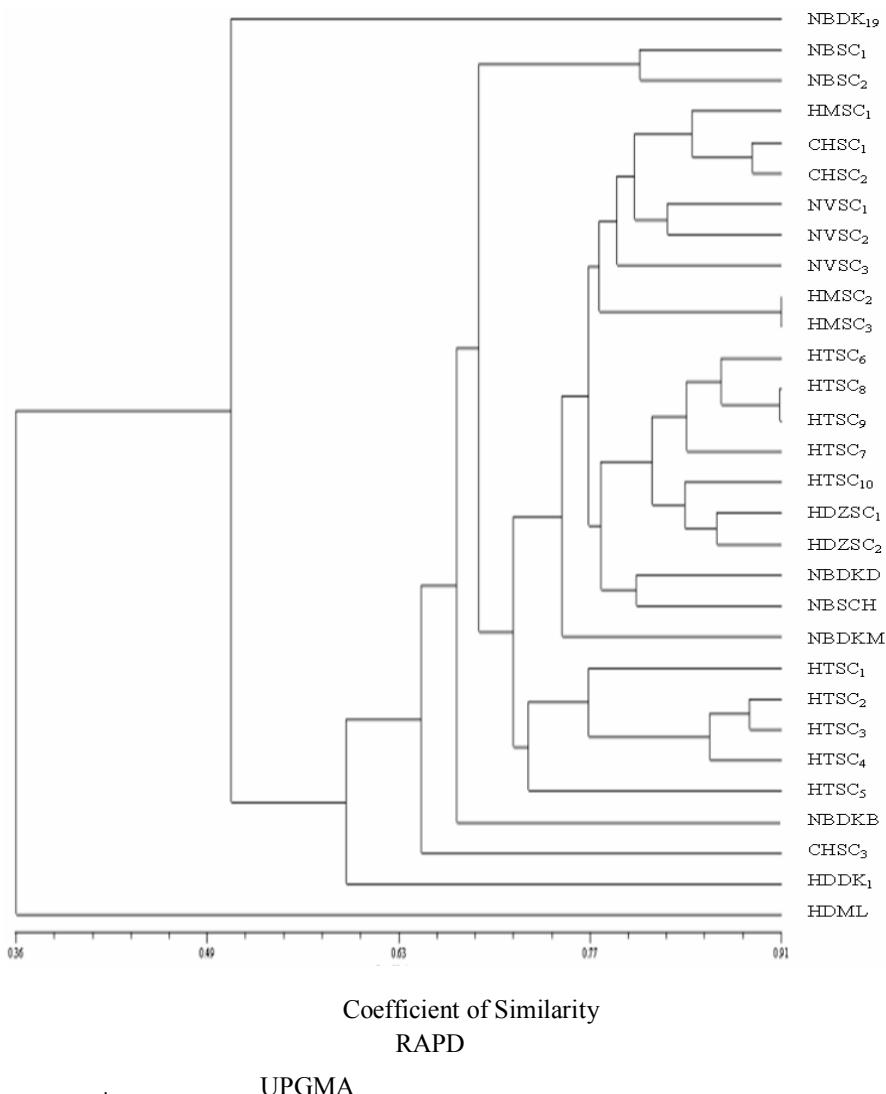
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