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***Magnaporthe grisea* (Hebert) Barr**  
**Poaceae**  
**rep-PCR**

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( // : // : )

			<i>Magnaporthe grisea</i>		
			rep-PCR	DNA	
			( <i>Echinochloa crus-galli</i> )	( <i>Setaria italica</i> )	( <i>Digitaria sanguinalis</i> )
	<i>nit</i>				
	<i>nit</i>				% %
VCG3	VCG2	VCG1		VCG1	
			DNA		BOX ERIC
F	E	D	C	B	A
					% / A
					%

DNA *nit*

*Pyricularia grisea* :

(Lumbsch & Huhndorf,

Magnaporthaceae

.2007)

: ] *Magnaporthe grisea* (Hebert) Barr

[*Pyricularia grisea* (Cooke) Sacc.

(Valent, 1997; Couch &

Sordariomycetes

<i>vic</i>		<i>Pyricularia grisea</i>	(Kohn, 2002)
	<i>M. grisea</i>	<i>Lolium perenne</i>	(Cooke) Sacc.
DNA			
	DNA		(Landschoot & Hoyland, 1992)
(Levy <i>et al.</i> , 1993; Kachroo <i>et al.</i> , 1994;			
<i>Kumar et al.</i> , 1999;)			
	<i>M. grisea</i>		(Ou, 1985; Ziegler, 1998)
RFLP	DNA		
MGR586		<i>M. grisea</i>	
(2002) Farman (Zeigler <i>et al.</i> , 1998)			
MGR586	RFLP		
<i>P. grisea</i>	MAGGY RETRO5		(Hebert, 1971)
<i>Lolium perenne</i>			
(1998) George <i>et al.</i> .			
Pot2			
DNA	DNA	rep-PCR	
DNA	RFLP		
		( )	
Pot2	<i>M. grisea</i>		
	rep-PCR	<i>vic</i>	
(George <i>et al.</i> , 1998; Correll <i>et al.</i> , 2000;			
<i>Prabhu et al.</i> , 2002; Suzuki <i>et al.</i> , 2006)		(1976) Genovesi & MaGill (Leslie, 1993)	
<i>M. grisea</i>	(2004) Javan-Nikkhah <i>et al.</i>	(1986) Crawford <i>et al.</i>	
Pot2			
	rep-PCR	<i>M. grisea</i>	
<i>M. grisea</i>	(2007) Bargnil	<i>vic</i>	
Vera Cruz <i>et al.</i> .	RAPD		
	(1996)		
BOX ERIC REP	DNA	Correll <i>et al.</i>	<i>M. grisea</i>
	rep-PCR	(2002) Javan-Nikkhah	(2000)

5. Repetitive element-based PCR  
 6. *Xanthomonas oryzae* pv. *oryzae*

1. Vegetative Compatibility Groups  
 2. Vegetative incompatibility  
 3. Mutants  
 4. Parasexualism

... *Magnaporthe grisea* (Hebert) Barr

MgSO<sub>4</sub>.7H<sub>2</sub>O      KH<sub>2</sub>PO<sub>4</sub>      K<sub>2</sub>HPO<sub>4</sub>      rep-PCR  
 NaNO<sub>3</sub>      /      CaCl<sub>2</sub>.H<sub>2</sub>O      /  
 B-Complex vitamin  
 /      Trace element  
 /  
 °C

(1999) Jedryczka *et al.* .  
*Leptosphaeria maculans*

DNA  
*Tilletia*      (2000) McDonald *et al.*  
 rep-PCR      DNA

°C

DNA  
*M. grisea*  
 (Correll *et al.*,      *nit X*      .1987)

*nit*  
*nit*      *M. grisea*

*M.*  
*grisea*  
 (*Digitaria sanguinalis*)  
 (*Echinochloa crus-galli*)      (*Setaria italica*)

*nit*      .(      )  
 ) *nit* 1  
 ) *nit* 3 (      *M. grisea*  
 (      ) *nit*  
 ) *Nit M*      (

(      PDA  
 .(Landschoot & Hoyland, 1992)  
*nit*      (KClO<sub>3</sub>)

*nit*      .  
 :(Harp & Correll, 1998)

- 
1. Clonal lineages
  2. Nitrate non-utilizing
  3. Minimal medium

(Prabhu *et al.*, 2002)

( )

DNA

(Liu *et al.*, 2000)

( )

pH EDTA (SDS) / pH Tris-HCl NaCl

(VCGs)

nit

cm

nit M

pH /

nit nit M

nit

g

g

g

*M. grisea*

DNA

rep-PCR

DNA

nit 1

Nit M

Nit M nit 1

Nit M nit 1

nit 3 nit 1

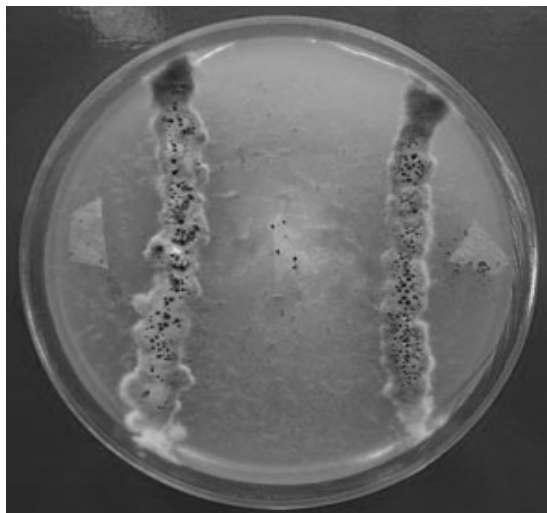
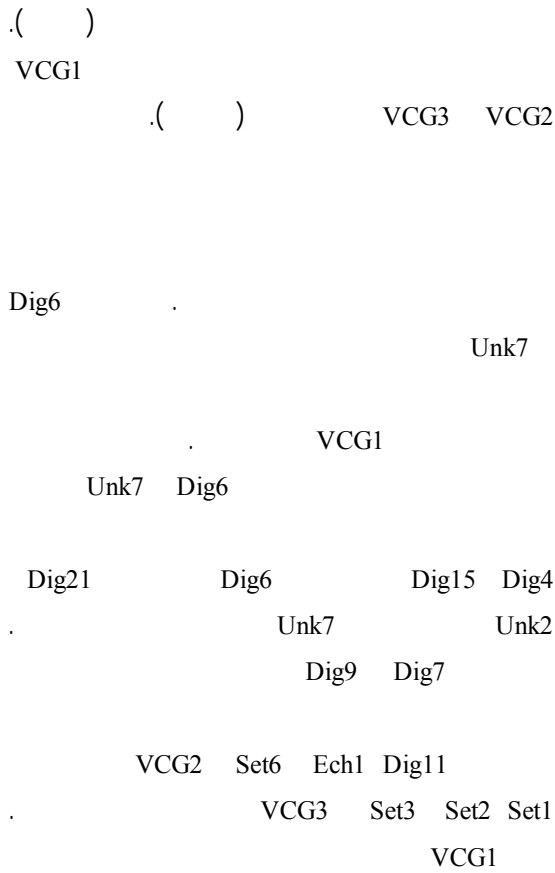
nit 3

°C

( )



M. grisea



Dig17

*M. grisea* ( ) Dig6

Dig17

VCG1

Dig17

VCG

<i>Mat1-2</i>	1	Dig1
<i>Mat1-2</i>	1	Dig2
<i>Mat1-2</i>	1	Dig3
<i>Mat1-2</i>	1	Dig4
<i>Mat1-2</i>	1	Dig5
<i>Mat1-2</i>	1	Dig6*
<i>Mat1-1</i>	1	Dig8
<i>Mat1-2</i>	1	Dig10
<i>Mat1-2</i>	1	Dig12
<i>Mat1-1</i>	1	Dig13
<i>Mat1-2</i>	1	Dig14
<i>Mat1-2</i>	1	Dig15
<i>Mat1-2</i>	1	Dig16
<i>Mat1-2</i>	1	Dig17
<i>Mat1-1</i>	1	Dig18
—	1	Dig19
<i>Mat1-2</i>	1	Dig20
<i>Mat1-2</i>	1	Dig21
<i>Mat1-2</i>	1	Dig22
<i>Mat1-1</i>	1	Dig23
<i>Mat1-1</i>	1	Set7
<i>Mat1-1</i>	1	Set8
<i>Mat1-1</i>	1	Set9
<i>Mat1-2</i>	1	Unk1
<i>Mat1-1</i>	1	Unk2
<i>Mat1-2</i>	1	Unk4
<i>Mat1-2</i>	1	Unk5
<i>Mat1-2</i>	1	Unk6
<i>Mat1-2</i>	1	Unk7*
<i>Mat1-2</i>	2	Dig7*
<i>Mat1-2</i>	2	Dig11
<i>Mat1-1</i>	2	Ech1
<i>Mat1-1</i>	2	Set6
<i>Mat1-2</i>	3	Dig9*
<i>Mat1-1</i>	3	Set1
<i>Mat1-1</i>	3	Set2
<i>Mat1-1</i>	3	Set3
<i>Mat1-1</i>	HSI	Set4
<i>Mat1-2</i>	HSI	Set 5
<i>Mat1-2</i>	HSI	Unk3

Unk7 Dig6

( )

\*

(Heterokaryon Self-Incompatibility) HSI

(2007) Bargnil

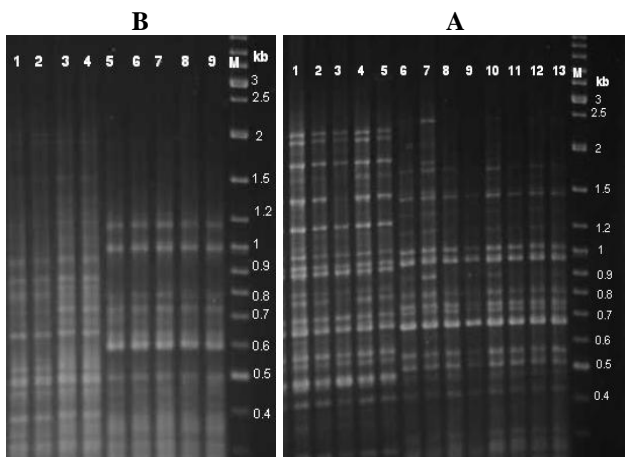
Unk2  
 A<sub>13</sub> A<sub>10</sub> A<sub>6</sub>  
 DNA  
 ( )  
 E F  
 A  
 DNA  
 ( )  
 F  
 DNA  
 E  
 ( )

DNA %  
 (1991, 1993) Levy *et al.*

F E D C B A

( )

% %



VCG1

A

*M. grisea*

% /

:A

rep-PCR

DNA

*M. grisea*

( )

(A . /

ERIC

(B .

BOX

M

DNA

A<sub>4</sub>

Dig15 Dig13

(kb)

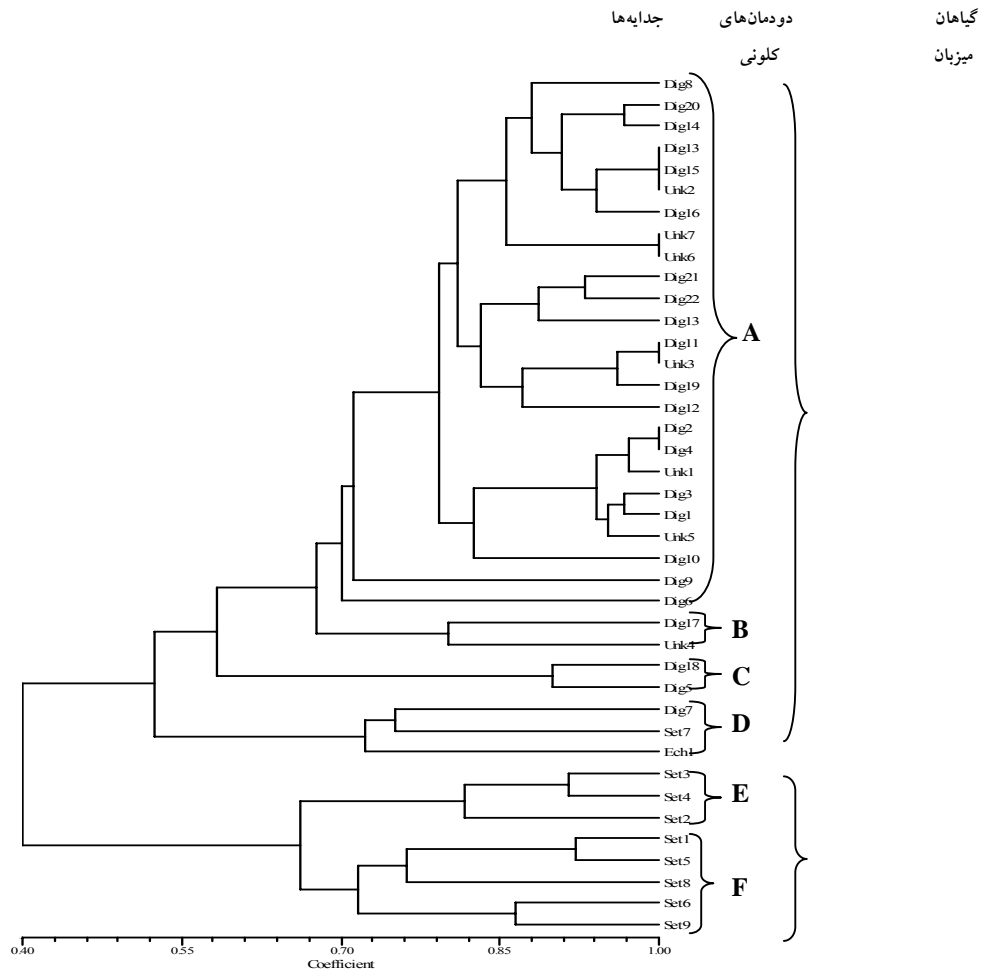
DNA

1. Haplotype

( )

D

D<sub>3</sub> D<sub>2</sub> D<sub>1</sub>



M. grisea NTSYS PC-2.02e UPGMA

BOX ERIC

rep-PCR

DNA

%

Set7

DNA

≥

D

(VCG)

*Magnaporthe grisea*

**						VCG*
F	E	D	C	B	A	
						VCG1
						VCG2
						VCG3

\*

rep-PCR

\*\*



... *Magnaporthe grisea* (Hebert) Barr

:

:C B

% %

.( )

B<sub>1</sub>

B

B<sub>2</sub>

(Barnil, 2007) *Mat1-2 Mat1-1*

C<sub>2</sub> C<sub>1</sub>

C

DNA

%

(Barnil, 2007)

*M. grisea*

(Turgeon

Genovesi & MaGill *et al.*, 1993)

(1986) Crawford *et al.* (1976)

*M. grisea*

BOX ERIC

(%)

/

A

B

C

(2000) Correll *et al.*

/

D

/

E

(2002) Javan-Nikkhah

/

F

*M. grisea*

( )

(2000) Correll *et al.*

(2002) Javan-Nikkhah

*M. grisea*

(2000) Crawford *et al.*

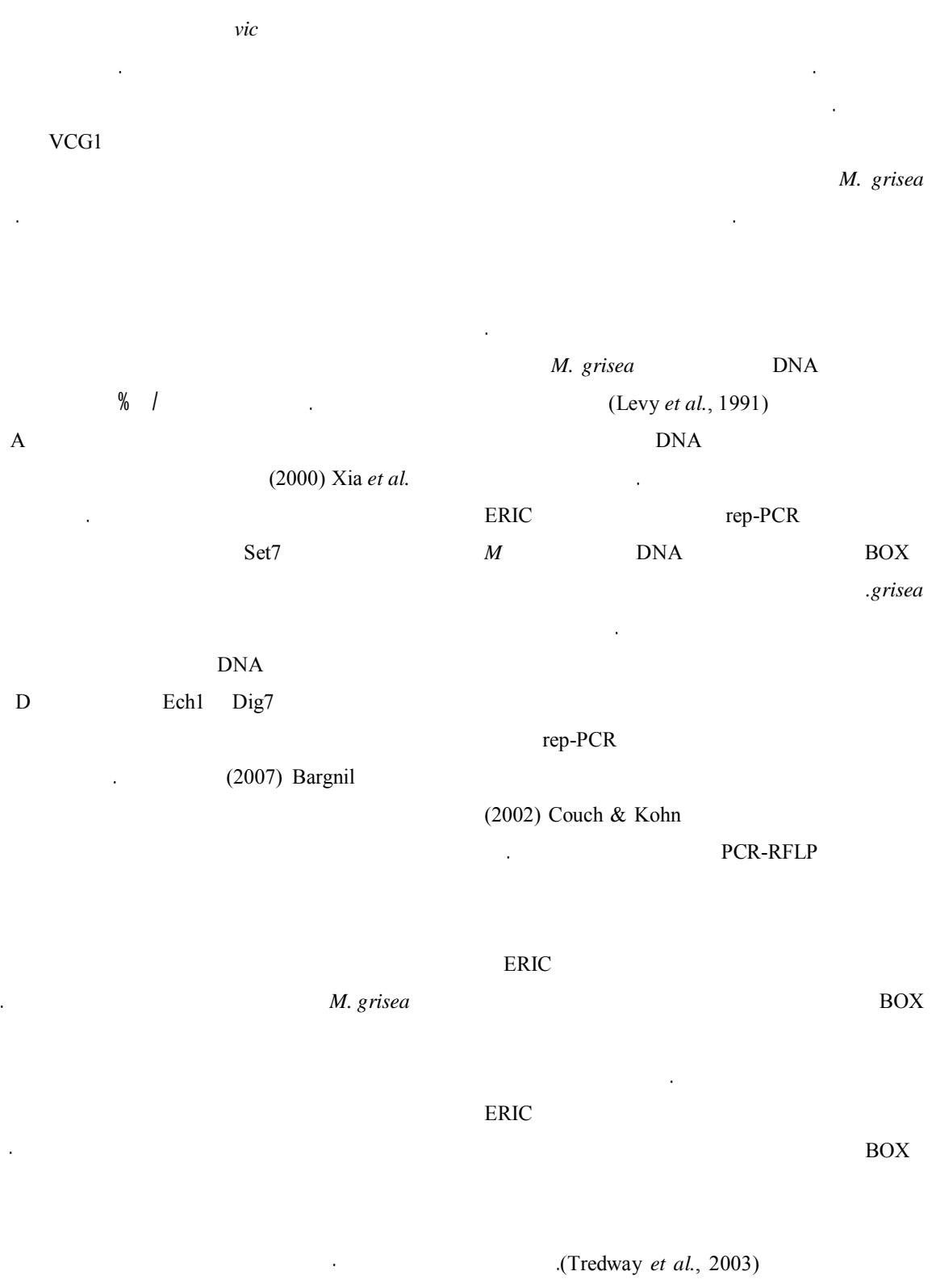
VCG1

VCG

Unk7 Dig6

VCG

*M. grisea*



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