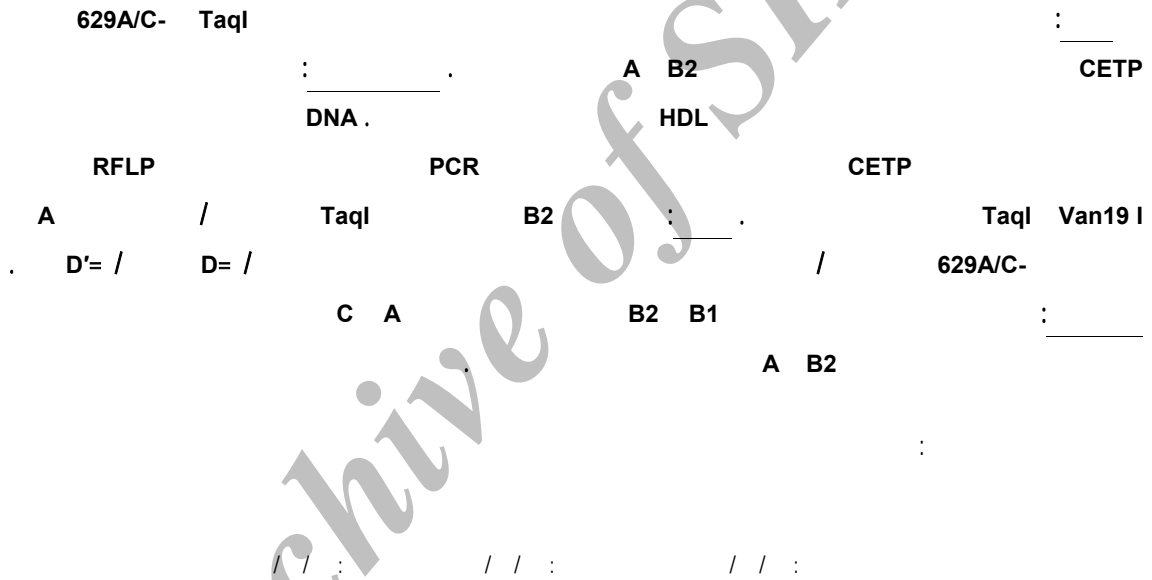


()

CETP TaqI -629A/C



ii

-
- i- Hardy Weinberg law
 - ii- Linkage analysis

:

E-mail: azizi@erc.ac.ir

(

bp bp A
 bp C
 bp B1 bp
 B2

SPSS

CETP

TaqI

HDL-C
 B2 B1
 C A

-629A/C

TaqI
-629A/C

a A
 q a p A
 p+q (p+q)²
 C B2

$[(b+d)/N][(c+d)/N]$:

$D=(d/N)$:

±

: HDL

mg/dL : () HDL ≤ mg/dL

HDL ≥ mg/dL : () HDL =

DNA

PCR

bp CETP
 bp

TaqI

TaqI

TaqI

B2 B1

Van19 I

CETP

B1

/

B2

) RFLP

TBE

% / % /

$p = / \rightarrow q = p \rightarrow q = /$

ⁱ Linkage disequilibrium

-629A/C TaqI

A-629A	A-629C	C-629C	TaqI
(/)	(/)	(/)*	B1B1 (%)
(/)	(/)	(/)	B1B2 (%)
(/)	(/)	(/)	B2B2 (%)

*

C A B2 B1

CETP

n=			
/	A	/	B2
/	C	/	B1
	(%) AA	/	(%) B1B1
/	(%) AC		(%) B1B2
/	(%) CC	/	(%) B2B2

A B2

-629A/C TaqI

B2

HDL-C

A

$$(/) + (/) + (/) (/) = :$$

-629A/C

D

Van19 I

CETP

C A

$$D = (d/N)^{1/2} - [((b+d)/N)((c+d)/N)]^{1/2}$$

D

/

A

:

C

D'

$$q = / \leftarrow q = p \leftarrow p = /$$

:

D

$$D' = \frac{D}{\min(P_{B2} P_C, P_{B1} P_A)} = /$$

min (P_{B2} P_C, P_{B1} P_A)

$$(/) + (/) + (/) (/) =$$

C B2

A

		A		
		(+)	(-)	
B2 {	(+)	a (+/+)	b (+/-)	a+b
	(-)	c (-/+)	d (-/-)	c+d
		a+c	b+d	N=a+b+c+d

C,A,B1,B2
A B2

D

D D'

q p

$p^2:2pq:q^2$

aa,Aa,AA

D
D'

D'

= /
B2

D'
A

D= /

C B1
D'= /

A B2

References

1. Cavalli-Sforza LL. The DNA revolution in population genetics. Trends Genet.1998; 14: 60-5.
2. Hartel DL, Clark AG. Principle of population genetics, 3rd ed. Sunderland: Sinauer associates; 1997.

Taq I -629A/C

DL-C

CETP

HDL-C CETP(TaqI)

B2

HDL-C CETP

6. Azizi F, Rahmani M, Emami H, Mirmiran P, Hajipour R, Madjid M, et al. Cardiovascular risk factors in an

Iranian urban population: Tehran lipid and glucose study (phase 1). *Soz Praventivmed* 2002; 47: 408-26.

7. Ferrie RM, Schwarz MJ, Robertson NH, Vaudin S, Super M, Malone G, et al. Development, multiplexing, and application of ARMS tests for common mutations in the CFTR gene. *Am J Hum Genet.* 1992; 51: 251-62.

8. Lu H, Inazu A, Moriyama Y, Higashikata T, Kawashiri MA, Yu W, et al. Haplotype analyses of cholesteryl ester transfer protein gene promoter: a clue to an unsolved mystery of TaqIB polymorphism. *J Mol Med* 2003; 81: 246-55.

9. van Venrooij FV, Stolk RP, Banga JD, Sijmonsma TP, van Tol A, Erkelens DW, et al. DALI Study Group. Common cholesteryl ester transfer protein gene polymorphisms and the effect of atorvastatin therapy in type 2 diabetes. *Diabetes Care* 2003; 26: 1216-23.

Archive of SID