Three different insertion polymorphisms 3' to the human apolipoprotein A-IV gene

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SOURCE/DESCRIPTION : pPH3'AIV, a 0.7 kb Pst I-Hind III genomic fragment subcloned into pSP6/T7-19. The insert is located approximately 40 kb 3' to the human apolipoprotein A-IV gene (1).

POLYMORPHISMS: Presence or absence of a 1200 bp, 500 bp, or 200 bp DNA fragment located 2.5 kb 3' of pPH3'AIV. The different insertion-deletions can be detected as a two-allele polymorphism with Apa I (5.4/ 4.7/ 4.4/ 4.2 kb), Sst I (6.0/ 5.3/ 5.0/ 4.8), Xmn I (7.6/ 6.9/ 6.6/ 6.4 kb).

FREQUENCY: The frequency of the different alleles is based on 184 unrelated Caucasian individuals from the Boston area.

Deletion :	0.695 (256/368)
Insertion 1.2 kb:	0.299 (110/368)
Insertion 0.5 kb:	0.003 (1/368)
Insertion 0.2 kb:	0.003 (1/368)

NOT POLYMORPHIC FOR : Msp I, Pst I, Pvu II.

CHROMOSOMAL LOCATION : Human apolipoprotein A-IV gene is located on the long arm of chromosome 11 (2).

MENDELIAN INHERITANCE : Co-dominant segregation observed for insertion 1.2 kb.

PROBE AVAILABILITY : J. M. Ordoas, at the above address.

OTHER COMMENTS : Insertion 1.2 kb can be detected also with Hind III (12.0/ 10.8 kb), EcoR I (22.2/ 21.0), Xba I (21.5/ 20.3).

REFERENCES : 1.- Ordoas, J.M. et al. (1988) Circulation 78: 1549a
2.- Cheung, P. et al. (1984) PNAS 81: 508

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