
A new anonymous marker on chromosome 7, D7S420, identifies a PvuII RFLP

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SOURCE/DESCRIPTION A 12.5 kb genomic DNA probe, DM30, isolated from a lambda Charon 4A HaeIII/AluI human genomic DNA library. Possibly contains some mid-repetitive DNA.

POLYMORPHISM PvuII (CAG/CTG, Amersham): A two-allele polymorphism with bands at 7.9 kb (allele 1) or 6.1 and 1.8 kb (allele 2). Many constant bands detected.

FREQUENCY Studied unrelated southern African males and females

	81 Caucasoids	39 Negroids	39 San
Allele 1 (7.9 kb)	0.73	0.81	0.97
Allele 2 (6.1, 1.8 kb)	0.27	0.19	0.03

NOT POLYMORPHIC FOR AvaII, BamHI, BglII, EcoRI, HincII, HindIII, MboI, MspI, PstI, RsaI, SstI, StuI, TaqI (7 individuals tested).

CHROMOSOMAL LOCALIZATION 2.8 kb EcoRI fragment isolated from DM30, that detects the PvuII RFLP, has been localized to chromosome 7 using somatic cell hybrid lines.

MENDELIAN INHERITANCE Co-dominant segregation demonstrated in at least 25 South African families, as well as 15 informative CEPH pedigrees.

PROBE AVAILABILITY Available to collaborators.

OTHER COMMENTS Alleles of the PvuII RFLP are detectable by hybridization with a 2.8 kb EcoRI fragment isolated from DM30; all other bands are excluded from hybridization.