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## An EcoRI polymorphism identified by KW6 (D10S97) on chromosome 10

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*Source/Description:* KW6 is a recombinant bacteriophage clone containing a 2.6 kb single-copy human insert. It was isolated from a human chromosome 10 library constructed by the Lawrence Livermore National Laboratory in the HindIII site of the Charon 21 vector. The library (ID code: LL10NS01) was made available through ATCC (American Type Culture Collection).

*Polymorphisms:* EcoRI detects a simple two-allele polymorphism with bands at either 6.4 kb(A1) or 3.6 kb and 2.8 kb(A2). There are also four constant bands at 8.3 kb, 7.0 kb, 3.9 kb, and 1.5 kb, respectively.

*Frequency:* Estimated from 23 unrelated Caucasians.  
A1:  $0.65 \pm 0.07$   
A2:  $0.35 \pm 0.07$

*Not Polymorphic For:* BstEII, BamHI, BglI, BglII, EcoRV, HaeIII, KpnI, MboI, MspI, PstI, PvuII, TaqI, and XmnI in ten unrelated Caucasians tested.

*Chromosome Localization:* Chromosome 10 origin of this clone has been confirmed by preliminary linkage data showing lod scores greater than 4 with each of the three known chromosome 10 pericentromeric markers FNRB, RBP3, and D10S15 (1).

*Mendelian Inheritance:* Co-dominant segregation of the EcoRI RFLP alleles was observed in TSCAN, one of our reference kindreds used for linkage studies with a total of 105 individuals.

*Probe Availability:* Contact JW or KKK.

*Other Comments:* The RFLP pattern was observed under normal hybridization and washing conditions for a single-copy probe.

*Reference:* 1. Smith, M. and Simpson, N.E. (1989) HGM10. *Cytogenet. Cell Genet.* **51**, 202–225.

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## High frequency PvuII and PstI polymorphisms identified by KW31 (D10S96) on chromosome 10

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*Source/Description:* KW31 is a recombinant bacteriophage  $\lambda$  clone containing a 1.3 kb single-copy human insert. It was isolated from a human chromosome 10 library constructed by the Lawrence Livermore National Laboratory in the HindIII site of the Charon 21 vector. The library (ID code: LL10NS01) was made available through ATCC (American Type Culture Collection).

*Polymorphisms:* PvuII detects at least three distinct allelic bands and their approximate sizes are 4.4 kb(A1), 4.0 kb(A2), and 3.7 kb(A3), respectively. (There appears to be small size variation for each of the bands, but these possible differences are difficult to resolve with ordinary agarose gel electrophoresis). There is also a constant band of 2.6 kb.

PstI detects a simple two-allele polymorphism with bands at either 7.9 kb(B1) or 7.3 kb(B2). No constant bands were detected.

*Frequency:*  
Estimated from 15 unrelated Caucasians— A1:  $0.50 \pm 0.09$   
A2:  $0.20 \pm 0.07$  A3:  $0.30 \pm 0.08$   
Estimated from 17 unrelated Caucasians— B1:  $0.56 \pm 0.09$   
B2:  $0.44 \pm 0.09$

*Not Polymorphic For:* HincII, HindIII, and XmnI in ten unrelated Caucasians tested.

*Chromosome Localization:* Chromosome 10 origin of this clone has been confirmed by preliminary linkage data showing lod scores greater than 5 with each of the known chromosome 10 markers RBP3, D10S22, CDC2, and D10S19 (1). Pairwise linkage data also suggest that D10S96 maps between RBP3 and EGR2/D10S19; its regional localization is therefore 10q11.2-q21.1.

*Mendelian Inheritance:* Co-dominant segregation of both the PvuII and PstI RFLP alleles was observed in TSCAN, one of our reference kindreds used for linkage studies with a total of 105 individuals.

*Probe Availability:* Freely available, contact JW or KKK.

*Other Comments:* Both PvuII and PstI RFLP patterns were observed under normal hybridization and washing conditions for a single-copy probe. Variations in the hybridization patterns were also observed for MspI, EcoRI, and KpnI, but they have not been further characterized.

*Reference:* 1. Smith, M. and Simpson, N.E. (1989) HGM10. *Cytogenet. and Cell Genet.* **51**, 202–225.