RFLPs associated with MDR2, a member of the human multidrug resistance gene family mapped to chromosome 7

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SOURCE/DESCRIPTION: pMDR2, a 1.0kb genomic PstI fragment of the mdr 2 gene subcloned into pSP64, isolated from the multidrug-resistant cell line KB-C3 (1)

POLYMORPHISM:

- 1) MspI (New England Biolabs) identifies a three-allele polymorphism with bands of 8.8kb, 7.4kb and 7.1kb.
- 2) EcoRI (New England Biolabs) identifies a two-allele polymorphism with bands of 4.5kb and 3.1kb.
- 3) PvuII (New England Biolabs) identifies a two allele polymorphism with bands of 5.9kb and 5.5kb.

FREQUENCY: Studied in a random population of European individuals.

- 1) MspI: 8.8kb allele = $.36 \pm .04$; 7.4kb allele = $.09 \pm .03$; 7.1kb allele = $.05 \pm .03$ (73 individuals)
- 2) EcoRI: 4.5kb allele = $.18 \pm .04$; 3.1kb allele = $.82 \pm .04$ (97 individuals)
- 3) PvuII: 5.9kb allele = $.93 \pm .04$; 5.5kb allele = $.07 \pm .04$ (43 individuals)

NOT POLYMORPHIC FOR: AatI, AluI, ApaI, BamHI, BanII, BclI, BglI, BglII, BspI286, BstEII, BstNI, DdeI, DraI, EcoRV, HaeII, HaeIII, HincII, HindIII, KpnI, NciI, PstI, RsaI, SacI, ScaI, ScrFI, SstI, StuI, TaqI, XbaI, XmnI all with a panel of at least 5 individuals.

CHROMOSOMAL LOCALIZATION: Chromosome 7 (2)

MENDELIAN INHERITANCE: Codominant segregation demonstrated in

- 1) HspI: 58 individuals from 11 informative families
- 2) EcoRI: 89 individuals from 18 informative families
- 3) PvuII: 8 individuals from 2 informative families

PROBE AVAILABILITY: Available for non-commercial applications. Contact I.B. Roninson

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