A TaqI RFLP for the human fibronectin (FN1) gene

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SOURCE/DESCRIPTION: The probe used is a 500 bp HindIII/BamHI fragment derived from the pFH111 recombinant plasmid. pFH111 is a pAT153/PvuII/8 plasmid containing 1.9 Kb of human fibronectin cDNA (Kornblihtt et al.).

POLYMORPHISM: On TaqI (T/CGA) (New England, Bio Labs, FRG) Southern blots the HindIII/BamHI fragment recognizes a simple two allele polymorphism with a band at either 3.25 (A2) or 2.00 Kb (A1) (Figure 1); three additional invariable bands are recognized by the probe at 2.25, 1.62 and 1.37 Kb.

FREQUENCY. Allele frequencies were calculated from 60 normal unrelated Caucasians. TaqI A1 allele: 0.85; A2 allele: 0.15.

NOT POLYMORPHIC FOR: HaeIII, HindIII, EcoRI, PstI, BglII.

CHROMOSOMAL LOCALIZATION: 2q34-36 (Jhanwar S.C. et al.)

MENDELIAN INHERITANCE: Co-dominant segregation demonstrated in two families with two informative meioses one of which is shown in Figure 1.

PROBE AVAILABILITY: Contact Prof. F.E. Baralle at the "Istituto Sieroterapico Milanese S. Belfanti", via Darwin 22, 20143 Milano, Italy.

OTHER COMMENTS: DNA fragments were run in 0.8% agarose gels.

REFERENCE: 1) Kornblihtt, A.R.; Vibe-Pedersen, K. and Baralle, F.E. (1984) Nucl. Acids Res. 12, 5853-5868; 2) Jhanwar, S.C.; Jensen J.T.; Kaelbling, M.; Chaganti, R.S. and Klinger, H.P. (1986) Cytogenet. Cell Genet. 41, 47-53.

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