Isolation and mapping of a polymorphic DNA sequence (pMCT32.1) on chromosome 3 (D3S31)


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SOURCE/DESCRIPTION: A 2.9 kb TaqI fragment from cosmid MCT32 was subcloned into the AccI site of pUC18.

POLYMORPHISM: PvuII identifies a three allele polymorphism (P1: 15.0 kb, P2: 14.0 kb, P3: 12.0 kb) with a constant band at 1.0 kb. MspI and TaqI also identify a two allele polymorphism (M1: 10.0 kb, M2: 7.0 kb and T1: 5.5 kb, T2: 2.9 kb) without a constant band, but this observation has not been verified by pedigree studies.

FREQUENCY: Estimated from 57 unrelated Caucasians.

<table>
<thead>
<tr>
<th>Allele</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>P1</td>
<td>0.12</td>
</tr>
<tr>
<td>P2</td>
<td>0.37</td>
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<tr>
<td>P3</td>
<td>0.51</td>
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</tbody>
</table>

NOT POLYMORPHIC FOR: Rsal, PstI, BglII, EcoRI, BamHI and HindIII

CHROMOSOMAL LOCALIZATION: pMCT32.1 has been assigned to chromosome 3 by multipoint linkage analysis (1) with a locus (CP) known to span this region (2).

MENDELIAN INHERITANCE: Co-dominant segregation of the PvuII RFLP was observed in 29 three generation families.

PROBE AVAILABILITY: Freely available (contact Y. N.) or will be available from ATCC.

OTHER COMMENTS: RFLPs were observed under normal hybridization and wash stringencies.

REFERENCES: