A polymorphic HindIII site within the human multidrug resistance gene 1 (MDR1)


The First Department of Medicine, School of Medicine, University of Tokushima, Kuramoto-cho 3-18-15, Tokushima 770, Oncogene Division, National Cancer Center Research Institute, Tsukiji 5-1-1, Chuo-ku, Tokyo 104, Japan and Laboratory of Molecular Biology, National Cancer Institute, Bethesda, MD 20892, USA

SOURCE/DESCRIPTION: A cDNA clone encoding human multidrug resistance gene 1 (MDR1) was isolated from the multidrug resistant cell line KB-C2.5. The cDNA clone 5A contains nucleotides 1178-2561 of the MDR1 cDNA cloned into pGEM4 (1).

POLYMORPHISM: HindIII identifies a two allele polymorphism with bands at 14.0 kb (A1) and 12.0 kb (A2) (see figure A and B). Invariant bands at 18.0, 7.8, 6.8 and 2.8 kb are also present.

FREQUENCY: Studied in 63 unrelated individuals of Japanese

<table>
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<tr>
<th>Allele</th>
<th>Frequency</th>
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<tr>
<td>14.0 kb (A1)</td>
<td>0.59</td>
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<tr>
<td>12.0 kb (A2)</td>
<td>0.41</td>
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NOT POLYMORPHIC FOR: EcoRI

CHROMOSOMAL LOCALISATION: Human MDR1 gene has been mapped to chromosome 7 (2).

MENDELIAN INHERITANCE: Co-dominant segregation shown in one informative family with 5 individuals (see figure B).

PROBE AVAILABILITY: Contact M. M. Gottesman and I. Pastan at the above address.


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