
Isolation and mapping of a polymorphic DNA sequence (pMCT15) on chromosome 21 [D21S113]

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SOURCE/DESCRIPTION: A 2.7 kb TaqI fragment from the cosmid MCT15 isolated by an oligonucleotide(GTGTGTGTGTGTGTGTGTGTGT) (1) was subcloned into the AccI site of pUC18.

POLYMORPHISM: MspI identifies 4 allele VNTR polymorphism with bands between 1.2 kb and 1.6 kb. BamHI, PstI, PvuII and TaqI also detect the same polymorphism.

HETEROZYGOSITY: 50 % heterozygosity was observed in 80 unrelated Caucasians.

NOT POLYMORPHIC FOR: RsaI, HindIII

CHROMOSOMAL LOCALIZATION: This probe has been assigned to chromosome 21 by linkage analysis (2) with the loci known to span this chromosome (3).

MENDELIAN INHERITANCE: Co-dominant segregation has been observed in 40 three generation families.

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

OTHER COMMENTS: RFLPs were observed under normal conditions of hybridization and washing.

REFERENCES:

1. Y. Nakamura et al., in preparation
2. G.M. Lathrop et al., Am. J. Hum. Genet. 37:482-498 (1985)
3. J.C. Kaplan and B. Carritt, Cytogenet. Cell Genet. 46:257-276 (1988)