
Isolation and mapping of a polymorphic DNA sequence (pMCT118) on chromosome 1p [D1S80]

Y.Nakamura, M.Carlson, K.Krapcho and R.White

The Howard Hughes Medical Institute, University of Utah School of Medicine, Salt Lake City, UT 84132, USA

SOURCE/DESCRIPTION: A 3.1 kb PstI fragment from the cosmid cMCT118 isolated with an oligonucleotide (GTGTGTGTGTGTGTGTGTGT) (1) was subcloned into the PstI site of pUC18.

POLYMORPHISM: HinfI identifies a >10 allele VNTR polymorphism with bands between 0.3 kb and 1.2 kb. RsaI, TaqI, MspI, PvuII, HaeIII and PstI also detect the same polymorphism.

HETEROZYGOSITY: 90% heterozygosity was observed with HinfI in 90 unrelated Caucasians.

NOT POLYMORPHIC FOR: none detected

CHROMOSOMAL LOCALIZATION: This probe has been assigned to distal chromosome 1p by multipoint linkage analysis (2) with loci known to span this region (3).

MENDELIAN INHERITANCE: Co-dominant segregation was observed in 45 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. P. O'Connell et al., Cytogenet. Cell Genet. 46:672 (1988)