Isolation and mapping of a polymorphic DNA sequence pJCZ3.1 on chromosome 19 [D19S20]

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SOURCE/DESCRIPTION: A 4.5 kb PstI fragment from cosmid JCZ3 isolated by zeta globin oligonucleotide (1) was subcloned into the PstI site of pUC18.

POLYMORPHISM: HinfI identifies a >10 allele VNTR polymorphism with bands between 1.5 - 4.0 kb without a constant band. MspI, TaqI, RsaI, BglII, PstI and PvuII also identify the same polymorphism.

FREQUENCY: With HinfI, 83% heterozygosity was observed in 108 unrelated Caucasians.

NOT POLYMORPHIC FOR: Not known

CHROMOSOMAL LOCALIZATION: pJCZ3.1 has been assigned to chromosome 19 by multipoint linkage analysis(2) with loci (LDLR, APOC2) known to span this region(3,4).

MENDELIAN INHERITANCE: Co-dominant segregation of the HinfI RFLP was observed in 54 three generation families.

PROBE AVAILABILITY: Contact Y.N.

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

REFERENCES:

1. Y. Nakamura et al., Science 235: 1616-1622 (1987)
2. G.M. Lathrop et al., Am. J. Hum. Genet. 37:482-498 (1985)
3. S. Naylor et al., Cytogenet. Cell Genet. 40:242-267 (1985)
4. Y. Nakamura et al., abstract submitted to Human Gene Mapping Workshop 9. Cytogenet. Cell Genet., in press