Isolation and mapping of a polymorphic DNA sequence (pCMM8.1) on chromosome 1p [D1S63]

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SOURCE/DESCRIPTION: A 14.5 kb PstI fragment from the cosmid cCMM8 was subcloned into the PstI site of pUC18.

POLYMORPHISM: MspI identifies a 2 allele polymorphism (M1: 1.6 kb, M2: 1.0 + 0.6kb) with constant bands at 5.5 kb, 1.4 kb, 1.0 kb, 0.9 and 0.4 kb.

FREQUENCY: Estimated from 97 unrelated Caucasians.

MspI M1: 0.74 M2: 0.26

NOT POLYMORPHIC FOR: BamHI, BglII, EcoRI, HindIII, PstI, PvuII, RsaI and TagI.

<u>CHROMOSOMAL LOCALIZATION</u>: pCMM8.1 has been assigned to chromosome 1p by multipoint linkage analysis (1) with loci (FY, NRAS, NGFB, RH) known to span this region (2).

MENDELIAN INHERITANCE: Co-dominant segregation of this polymorphism was observed in 49 three generation families.

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

OTHER COMMENTS: RFLPs were observed after competitive hybridization with total human DNA.

REFERENCES:

- 1. G.M. Lathrop et al., Am. J. Hum. Genet. 37:482-498 (1985)
- 2. P. O'Connell et al., Cytogenet. Cell Genet. 46:672 (1988)