Isolation and mapping of a polymorphic DNA sequence (cTBQ7) on chromosome 10 [D10S28]

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SOURCE/DESCRIPTION: This cosmid was isolated from a somatic hybrid cell line 762-8A which included chromosome 10 and Y as human chromosomes (1). The cosmid includes a nearly 40 kb of human DNA digested partially with Sau3AI at the BamHI site of pWE15.

POLYMORPHISM: Msp I identifies a >10 allele VNTR polymorphism with bands between 2.0kb and 7.0kb. TaqI, RsaI, BglII, PstI, and PvuII also detect the same polymorphism.

FREQUENCY : 92 % heterozygosity was observed in 61 unrelated Caucasians.

NOT POLYMORPHIC FOR: none detected

CHROMOSOMAL LOCALIZATION: pTBQ7 has been assigned to chromosome 10p by multipoint linkage analysis (2) with loci mapped on chromosome 10 (3).

MENDELIAN INHERITANCE: Co-dominant segregation of RFLP was observed in 32 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. Fisher et al., Am. J. Hum. Genet. 40 :503-511 (1987)
2. G.M. Lathrop et al., Am. J. Hum. Genet. 37:482-498 (1985)
3. G.M. Lathrop et al., Genomics 2:157-164 (1988)