Isolation and mapping of a polymorphic DNA sequence (cTB14.16) on chromosome 10 [D10S33]

T.Bragg, Y.Nakamura, C.Jones¹ and R.White

The Howard Hughes Medical Institute, University of Utah Medical School, Salt Lake City, UT 84132 and
¹Eleanor Roosevelt Institute for Cancer Research, Denver, CO 80262, USA

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: RsaI identifies a five allele VNTR polymorphism with bands between 3.7kb and 5.0kb. MspI, TaqI, PstI, and PvuII also detect the same polymorphism.

FREQUENCY : 52 % heterozygosity was observed in 61 unrelated Caucasians.

NOT POLYMORPHIC FOR: none detected

CHROMOSOMAL LOCALIZATION: cTB14.16 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 30 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)