A polymorphism of D13S86 from the region 13q14.1 to 13q22

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Source and Description of Clone: A single copy, human genomic 2.0 kb HindIII fragment, cloned from the chromosome 13 specific library of Lalande *et al.* (1).

Polymorphism: A two allele polymorphism detected with HaeIII, with bands at 410 bp and 375 bp, and constant bands at 595 bp and 560 bp (see Figure). Also polymorphic for Sau3A.

Frequency: Studied in DNA from 47 random Canadian Caucasians.

Genotypes: A1A1: 4, A1A2: 16, A2A2: 27

Frequency of 410 bp fragment (A1): 0.26

Frequency of 375 bp fragment (A2): 0.74

Not Polymorphic For: AluI, ApaI, AvaII, BamHI, BglI, BglII, BstEII, EcoRI, HincII, HindIII, HinfI, MspI, PstI, PvuII, RsaI, SacI, TaqI, XbaI in digests of DNA from 6–7 unrelated individuals.

Chromosomal Localization: 13q14.1 to 13q22 by mapping to a hybrid cell panel (2).

Mendelian Inheritance: Codominant pattern of inheritance shown in 4 two-generation families (35 individuals).

Probe Availability: Write to W.K.Cavenee at the above address.

Other Comments: Wash stringency of 0.1% SDS, 0.1×SSC; at 60°C.

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References: 1) Lalande, M. *et al.* (1984) *Cancer Genet. Cytogenet.* **13**, 283–295. 2) Houwen, R.H.J. *et al.* manuscript in preparation.

A high-frequency RFLP at the human TFE3 locus on the X chromosome

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Source/Description: TFE3–1.9 is a 1.9 kb EcoRI cDNA fragment derived from the TFE3 cDNA. The TFE3 gene encodes a DNA-binding protein that binds the μ E3 site of the immunoglobulin heavy chain enhancer (1). The 1.9 kb fragment comprises the 3' portion of the TFE3 cDNA and is cloned into the plasmid vector pBluescript SK+ (Stratagene).

Polymorphism: RsaI identifies a two allele polymorphism with strong bands at either 1.8 or 1.1 kb. There is a fainter invariant band at 1.4 kb.

Frequency: Calculated from 132 unrelated X chromosomes

1.8 kb allele 0.47

1.1 kb allele 0.53.

Not Polymorphic For: BglI, BglII, DraI, EcoRI, MspI, and PstI in a screen of 20 unrelated X chromosomes and TaqI in a screen of 10 unrelated X chromosomes.

Chromosomal Localization: The human TFE3 gene has been localized to proximal Xp by linkage to the Xp11.22 marker DXS255 ($Z > 3$ with no recombination) and by Southern blot analysis of human/rodent somatic cell hybrids (2).

Mendelian Inheritance: X-linked inheritance demonstrated in 20 informative families.

Probe Availability: The probe may be obtained through the American Type Culture Collection, 12301 Parklawn Drive, Rockville, MD 20852 (pTFE3–1.9, ATCC # 65048).

Other Comments: Final wash conditions at 0.2×SSC at 65°C.

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References: 1) Beckmann, Su and Kadesch (1990) *Genes and Development* **4**, 167–179. 2) J.Puck and P.Henthorn, unpublished data.

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