A frequent RFLP identified by a human proenkephalin genomic clone [HGM9 symbol PENK]

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SOURCE AND DESCRIPTION OF CLONE. λ Enk1 is a 16 kb human genomic proenkephalin clone isolated from a Charon 4A library of partially digested AluI/HaeIII fetal liver DNA.

POLYMORPHISMS: Stu I identifies a 2-allele RFLP with A1=5.9, A2=5.3 kb and with constant bands at 8.4, 3.3, 1.9 and 1.45 kb.

FREQUENCIES: Studied 21 European Caucasians. A1=.52, A2=.48

NOT POLYMORPHIC WITH: 29 other enzymes including Taq I, Msp I, Rsa I, BamHI, Pvu II and Pst I.

CHROMOSOMAL LOCALIZATION: Probe previously localized to 8q23-q24, by in situ hybridization.

MENDELIAN INHERITANCE: Codominant Mendelian inheritance was observed in three families with a total of 18 children.

AVAILABILITY: Available for collaboration: write to M. Litt.

OTHER COMMENTS: To block repeated sequences in the probe, Southern blots are prehybridized with sonicated total human placental DNA replacing salmon sperm DNA. Final stringency wash is with 0.1XSSC/0.1% SDS at 65-68^o.

REFERENCE: Litt M, Buroker NE, Kondoleon SK, Douglass J, Liston D, Sheehy R, and Magenis RE (1988) Am. J. Hum. Genet. 42:327-334.

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