Ava II RFLP at the insulin-like growth factor II (IGF II) locus on chromosome 11

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SOURCE AND DESCRIPTION OF CLONE : The human placental IGF II cDNA insert P35 (vector λ gt 10) (Ref. 1) was subcloned in PGEM4 (pTG 3907). We used the 660 bp Eco RI fragment containing 15 bp of the 5' untranslated region (exon 4), the coding and 99 bp of the 3' untranslated region of the IGF II gene (exons 5,6,7).

POLYMORPHISM : Ava II digestion of genomic DNA and hybridisation with the IGF II probe reveals invariant fragments of 1.6 and 0.4 kb and polymorphic fragments of 1.1 kb (allele 1) and 0.9 kb (allele 2).

FREQUENCY : Studied in 52 unrelated European Caucasians
allele 1 : 0.75 allele 2 : 0.25

NOT POLYMORPHIC FOR : Hind III, Mbo I, Msp I, Pvu II, Taq I (n=12);
Bam HI, Bgl II, Kpn I (n=10)

CHROMOSOMAL LOCALISATION : 11 p 15 (Ref. 2-4)

MENDELIAN INHERITANCE : Codominant segregation observed in 2 european families (8 individuals)

PROBE AVAILABILITY : Contact Y. Le Bouc

OTHERS COMMENTS : Sst I and Apa I show previous described RFLP (Ref. 5). Allelic frequencies however were : Sst I (allele 1 : 10 kb = 0.33 and allele 2 : 7.6 kb = 0.67, n=18) and Apa I (allele 1 : 3.7 kb = 0.28 and allele 2 : 1.1 kb = 0.72, n=26). Apa I (allele 1) and Ava II (allele 2) RFLPs are linked.

REFERENCES : 1. Le Bouc Y, et al. (1987) FEBS Lett 222 : 181-185.
2. Brissenden JE, et al. (1984) Nature 310:781-784.
3. Tricoli JV, et al. (1984) Nature 310:784-786.
4. De Pagter-Holthuizen P, et al. (1985) Hum Genet 69:170-173.
5. Xiang K, et al. (1988) Nucl Acids Res 16:3599.

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