TaqI and RsaI RFLP's at the prolactin inducible protein (PIP) locus on chromosome 7

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SOURCE/DESCRIPTION: The probe gPIP-1-5 is a 1.5Kb genomic DNA fragment containing exon 1 and 700bp of 5' flanking region of the PIP gene. The clone was isolated by screening a human genomic library (Manuscript in progress) with the PIP cDNA.

POLYMORPHISM: TaqI digestion of genomic DNA and hybridization with the gPIP-1-5 probe detects a two allele polymorphism with allelic fragments of 5.0Kb (allele 1) and 4.0Kb (allele 2). RsaI digestion reveals polymorphic fragments of 0.5Kb (allele 1) and 0.3Kb (allele 2).

FREQUENCY: Studied 16 unrelated individuals (Caucasians)

	Frequency of Allele 1	Allele 2
TaqI (N=16)	0.75	0.25
RsaI (N=8)	0.81	0.19

NOT POLYMORPHIC FOR: HindIII or ScaI in 16 individuals

CHROMOSOME LOCALISATION: PIP gene localized on the long arm of chromosome 7q32-q36 by somatic cell hybrids and in situ hybridization (2).

MENDELIAN INHERITANCE: Codominant segregation observed in 7 Caucasian families (57 individuals) for TaqI alleles and 4 Caucasian families (25 individuals) for RsaI alleles.

PROBE AVAILABILITY: Available now for collaboration.

OTHER COMMENTS: No problem on RFLP analysis under stringent conditions.

REFERENCE: 1) Murphy, LC et al. (1987), J. Biol. Chem. 262:15236 2) Myal, Y. et al. Som. Cell Mol. Genet. (in press).

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