A PPY cDNA clone identifies a frequent RFLP

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SOURCE/DESCRIPTION: A pancreatic polypeptide cDNA clone (465 base pair insert in the vector pBR322) was isolated from a library created from human pancreatic neoplasm RNA. This cDNA clone spans a 95 amino acid sequence in the coding region with a 29 amino acid amino terminus leader sequence, a three amino acid connecting sequence and a 27 amino acid carboxyl terminus (Takeuchi and Yamada, 1985).

POLYMORPHISM: MspI (C/CGG) identifies a simple two-allele polymorphism with bands at either 3.5 kb or 2.0 kb. There are no constant bands.

FREQUENCY: Studied 45 unrelated Caucasians
3.5 kb allele (A1) : 0.52 ± 0.05
2.0 kb allele (A2) : 0.48 ± 0.05

NOT POLYMORPHIC FOR: PvuII, HincII, BglI, BglIII, BamHI, SacI, PstI, RsaI, TaqI, EcoRI, and HindIII using a panel of 12 unrelated individuals.

CHROMOSOMAL LOCALISATION: PPY maps to 17p11.1-17qter (Takeuchi et al., 1985); not closely linked to TK or GH (Pletcher et al., unpublished results).

MENDELIAN INHERITANCE: Autosomal codominant segregation has been observed in four large kindreds (> 300 individuals) typed for this polymorphism.

PROBE AVAILABILITY: Available for collaboration from Dr. Toshiyuki Takeuchi.

OTHER COMMENTS: RFLP analysis is possible under normal stringency conditions; routine digestion overnight with 4 units MspI/ μ g genomic DNA.

REFERENCES:

- Takeuchi, T. and T. Yamada, 1985. Isolation of a cDNA clone encoding pancreatic polypeptide. *PNAS* 82: 1536-1539.
Takeuchi, T., D. Gumucio, R. Eddy, M. Meisler, C. Minth, J. Dixon, T. Yamada, and T. Shows, 1985. Assignment of the related pancreatic polypeptide (PPY) and neuropeptide Y (NPY) genes to regions on human chromosome 17 and 7. *Cytogenet. Cell Genet.* 40:759.

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