Human renin (REN) gene locus: BglII, RsaI and TaqI RFLPs

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SOURCE: 1.5kb human renin cDNA isolated from a human kidney cDNA library and subcloned into pUC 9(1).

POLYMORPHISMS: BglII (AGATCT) detects an invariant band at 10kb and a single two-allele polymorphism with bands at either 20kb or 24kb. RsaI (GTAC) detects a dimorphism with presence or absence of a 0.9kb band. TaqI (TCGA) visualizes a two-allele polymorphism with bands at either 9.8kb or 11.0kb.

FREQUENCY: Studied in 60 unrelated Northern American individuals

BglII	24kb allele: 0.28	TaqI	11.0kb allele: 0.2
	20kb allele: 0.72		9.8kb allele: 0.8
RsaI	Presence of the 0.9kb band: 0.65		
	Absence of the 0.9kb band: 0.35		

CHROMOSOMAL LOCATION: Human renin gene assigned to chromosome 1 by filter hybridization of human-rodent somatic cell hybrids (2).

MENDELIAN INHERITANCE: Co-dominant segregation observed in 3 families of 12 individuals (BglII), 2 families of 6 individuals (RsaI) and 2 families of 15 individuals (TaqI).

PROBE AVAILABILITY: Requests for probe to P.F. at the above address.

OTHER COMMENTS: Low back-ground at usual stringency conditions.

REFERENCE: 1 - Fritz, L.C. et al. (1986) PNAS 83, 4114
2 - Naylor, S.L. et al. (1984) Cytogen. Cell. Genet. 37, 549

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