***XmnI*, *HincII* and *BclI* RFLPs at D16S79**A.K.Gedeon, J.C.Mulley and M.H.Breuning¹

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SOURCE/DESCRIPTION : Probe 36-1 (*D16S79*) : a 1 kb *PstI* fragment in p(KUN)(2).

POLYMORPHISM : *XmnI*, *HincII* and *BclI*, in addition to the two *TaqI* polymorphisms already described.

<i>TaqI</i>	3.4 kb	A1	<i>XmnI</i>	5.7 kb	constant band
	2.9 kb	constant band		3.4 kb	C1
	1.6 kb	A2		3.3 kb	C2
(Breuning et al, 1989)					
<i>TaqI</i>	9.1 kb	B1	<i>HincII</i>	6.1 kb	D2
	4.5 kb	B2		5.7 kb	constant band
	3.8 kb	B3		5.3 kb	D1
(Breuning et al, 1989)					
			<i>BclI</i>	6.0 kb	constant band
				4.8 kb	E2
				4.4 kb	E1

FREQUENCY : From 21 unrelated Caucasians	:	C1 0.60
		C2 0.40
From 19 unrelated Caucasians	:	D1 0.58
		D2 0.42
From 30 unrelated Caucasians	:	E1 0.93
		E2 0.07

NOT POLYMORPHIC FOR : *BamHI*, *BanI*, *BglII*, *BstNI*, *EcoRV*, *HindIII*, *MspI*, *PstI*, *PvuII*, *RsaI* or *XbaI*.

CHROMOSOMAL LOCALISATION : 16p13.13 - p13.11 by hybridisation to a somatic cell hybrid panel of chromosome 16, *in situ* hybridisation to metaphase chromosomes expressing *FRA16A* and linkage to *FRA16A* (Callen et al, 1989).

MENDELIAN INHERITANCE : Inheritance was demonstrated in Utah pedigrees. In family 981 the heterozygous C1C2 x C1C2 mating produced 4 heterozygotes and 3 C2C2 homozygotes, whereas a C1C1 x C2C2 cross produced 5 heterozygotes. Family 1029 had both parents heterozygous D1D2 with 3 D2D2 and 4 D1D2 offspring. Utah family 985 with parents D1D2 and D1D1 had 4 D1D1 and 4 D1D2 progeny. In the same family E1E2 x E1E1 gave 4 E1E1 and 4 E1E2 offspring.

PROBE AVAILABILITY : Dr. M.H. Breuning, Institute of Human Genetics, Sylvius Laboratoria, Wassenaarseweg 72 2333 AL, Leiden, The Netherlands.

REFERENCES : Breuning MH, Savis JJ, Wapenaar MC, den Dunnen JT, van Ommen GJB and Pearson PL (1989) : The isolation of DNA probes from chromosome 16 for the diagnosis of polycystic kidney disease. In: Approaches to the Pathogenesis of Polycystic Kidney Disease, Carone FA (Ed). Callen DF, Hyland VJ, Baker EG, Fratini A, Gedeon AK, Mulley JC, Fernandez KEW, Breuning MH and Sutherland GR (1989) : Mapping the short arm of human chromosome 16, Genomics 4: (in press).

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