

D6S110 detects polymorphic *HindIII* fragments associated with individual *HLA-A* class I haplotypes

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Source/Description: Probe pMC27.7 is a 700 bp *EcoRI* fragment isolated from a cosmid (RS27) containing the *HLA-G* class I gene¹. The clone was derived from the MHC hemizygous B cell line, 3.1.0². pMC27.7 is found 17 kb 5' of the *HLA-G*¹ class I gene and approximately 100 kb from the *HLA-A* locus². The probe resides within a 2.0 kb nonpolymorphic *HindIII* fragment (35 unrelated individuals tested).

Polymorphism: pMC27.7 crossreacts with a set of 4 polymorphic *HindIII* fragments, numbered 1 through 4 of 20, 15, 11, and 5 kb, respectively. Polymorphism is also detected with *EcoRI* but not with *BglII*.

Allele Frequency: 35 unrelated French individuals examined

A1	Fragment 1 [20 kb]:	0.42
A2	Fragment 2 [15 kb]:	0.45
A3	Fragment 3 [11 kb]:	0.02
A4	Fragment 4 [5 kb]:	0.11

Mendelian Inheritance: A Mendelian pattern of inheritance was demonstrated in one informative family studied.

Probe Availability: Contact Dr. Michael Chorney.

Comments: The crossreactive *HindIII* fragments correspond to *HLA-A* haplotype in the individuals tested (see figure legend).

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References: 1. Geraghty *et al.* (1987) *PNAS* **84**, 9145-9149 2. Chorney *et al.* *Genomics*, manuscript submitted.

D7S448 detects a *HindIII* polymorphism located in the centromere region of chromosome 7

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Source/Description: IEF 24.11 (D7S449) contains a 3.0 kb *EcoRI* fragment isolated from the IEF 2/3 hybrid cell line (1), and inserted into pBR322.

Polymorphism: *HindIII* detects a single two-allele polymorphism: Allele 1—6.0 kb, allele 2—5.8 kb with a constant band at 2.0 kb.

Frequency: Estimated from 107 unrelated Caucasians

A1	<i>HindIII</i>	6.0 kb	allele: 0.45
A2		5.8 kb	allele: 0.55

Not Polymorphic For: *AvaII*, *BamHI*, *BglII*, *EcoRI*, *MspI*, *PstI*, *SacI*, *TaqI*.

Chromosomal Location: Isolated from a hybrid containing only 7cen and 7q3 sequences. Located in the 7cen region by multipoint analysis in CEPH pedigrees.

Mendelian Inheritance: Co-dominant segregation of the *HindIII* alleles observed in 38 families (410 individuals).

Probe Availability: Freely available from M.D.

Other Comments: RFLPs were observed under normal hybridization stringency, with washes performed at 65 in 0.1×SSC. The probe is single copy.

References: (1). Arfin, S.M., Cirullo, R.E., Arredondo-Vega, F.X. and Smith, M. (1983) *Somatic Cell Genet.* **9**, 517-531.

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