A highly polymorphic minisatellite (pMS627) on chromosome 14 (D14S44)

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Source/Description of Clone: cMS627 was isolated from the ordered array Charomid library described (1); pMS627 is a subclone into pBluescriptII KS+ of the *Sau3AI* insert from cMS627. The locus detected has the symbol D14S44.

Polymorphism: The probe detects a minisatellite (VNTR) locus, at which at least 12 alleles were detected in a survey of *MboI*-digested DNA from 45 unrelated Caucasians; allele sizes range from 1 to 20 kb.

Chromosomal Localisation: The locus detected was localised to chromosome 14 using somatic cell hybrid and linkage analysis as described (1).

Mendelian Inheritance: A single allele length mutation was observed in 100 meioses scored. Otherwise, mendelian inheritance was observed in 6 pedigrees from the CEPH panel.

Heterozygosity: The heterozygosity was estimated at 96% among 45 unrelated individuals of Caucasian origin.

Hybridization Conditions: The *Sau3AI* insert was oligo-labelled and used to probe human genomic DNA in phosphate/SDS buffer as described (2), but with only 10 µg/ml sheared human DNA as competitor. Filters were washed to 0.1×SSC at 65°C.

Probe Availability: This probe has been deposited with the UK DNA Probe Bank, and may be obtained by writing to Dr Gabrielle Fisher, HGMP Resource Centre, CRC, Watford Road, Harrow, Middlesex, HA1 3UJ, UK.

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Three polymorphisms detected by a *retinal degeneration slow (rds)* probe (RDS)

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Source/Description: An 861 bp *PstI* fragment of a mouse *retinal degeneration slow (rds)* cDNA clone, B9A, corresponding primarily to the coding region of the mRNA (1), detects three RFLPs by Southern blotting.

Polymorphism:

Enzyme	Allele 1 (freq.)	Allele 2 (freq.)	Constant bands
BglII	4.6 kb (0.41)	4.2 kb (0.59)	1.4 kb, 0.8 kb
HindIII	8.3 kb (0.38)	8.0 kb (0.62)	>23 kb
XbaI	19.0 kb (0.54)	12.5 kb (0.46)	18.0 kb

Frequency: Frequencies listed above were calculated in 23, 17 and 24 unrelated Caucasians, respectively.

Not Polymorphic For: *AluI*, *ApaI*, *BamHI*, *DraI*, *EcoRI*, *KpnI*, *MspI*, *PstI*, *PvuII*, *RsaI*, *SstI*, *StyI*, *TaqI*. (Examined 14 unrelated Caucasian individuals each).

Linkage Disequilibrium: The apparent linkage disequilibrium between the *BglII* and *HindIII* polymorphic systems may be due to the close proximity of the two restriction sites to one another. The nearly equivalent (300–400 bp) size difference between alleles 1 and 2 in both systems suggests that both enzymes may be detecting the same polymorphism.

Chromosomal Localization: The RDS locus is found on human chromosome 6p12 by somatic cell hybrid and *in situ* hybridization mapping (2).

Mendelian Inheritance: Segregation of *BglII*, *HindIII* and *XbaI* RFLPs was demonstrated in 4 families (65 individuals), 3 families (14 individuals) and 3 families (21 individuals), respectively.

Probe Availability: Requests for the probe should be made to G.H.Travis at the above address.

Other Comments: Final washing conditions for hybridization to human genomic blots were 0.2×SSC, 0.1% SDS at 60°C.

References: 1) Travis, G.H. *et al.* (1989) *Nature* **338**, 70–73. 2) Travis, G.H. *et al.* (1991) *Genomics* **10**, 733–739.

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