Multiple Taq I RFLPs at the human manganese superoxide dismutase (SOD2) locus on chromosome 6

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SOURCE/DESCRIPTION: The probe is an 827 bp insert from phMnSOD4 (vector-pBR327) which encodes the 222 amino acid human MnSOD precursor, 91 and 21 bp of 5' and 3' untranslated region, respectively, and poly A tract.

POLYMORPHISMS:

Taq I-polymorphism A 2 alleles 2.3 and 2.0 kbp
Taq I-polymorphism B 2 alleles 1.5 and 1.2 kbp
Taq I A and B exhibit some linkage disequilibrium; the pairwise linkage disequilibrium value is 0.6 for Caucasians. The probe also detects constant fragments of 3.8 and 3.2 kbp.

FREQUENCY:

		Caucasian (N=30)	Chinese (N=42)
Taq IA	Allele 1 (2.3 kbp)	0.40	0.87
	Allele 2 (2.0 kbp)	0.60	0.13
		(N=31)	(N=8)
Taq IB	Allele 1 (1.5 kbp)	0.27	0.38
	Allele 2 (1.2 kbp)	0.73	0.62

NOT POLYMORPHIC FOR: BamHI, Bgl II, Kpn I and Rsa I

CHROMOSOMAL LOCALISATION: 6q21 using somatic cell hybrids (McAlpine et al 1985).

MENDELIAN INHERITANCE: No evidence of non-Mendelian inheritance in 16 families including 3 in which both RFLPs segregated independently.

PROBE AVAILABILITY: Contact G. I. Bell or R. A. Hallewell

REFERENCES:

McAlpine, P. J. et al (1985) Cytogenet. Cell Genet. 40: 8-66