An RFLP associated with the human catalase gene

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SOURCE AND DESCRIPTION OF CLONE: An 800 bp single copy ScaI-SnaBI fragment subcloned in pSP64. This fragment is from a recombinant phage carrying part of the human catalase gene (unpublished result) and is located in the intron separating the exons coding for amino acids 1-21 and 22-79 of catalase. This recombinant phage was isolated from HaeIII-AluI library in λ Charon 4A (1). The human catalase gene has been mapped using human-rodent somatic cell hybrids to 11p11-11pter (2).

POLYMORPHISM: TaqI (TCGA) (Boehringer Mannheim) identifies a two allele polymorphism with a band at 3.5 kb or bands at 2.5 and 1.0 kb.

ALLELE FREQUENCY: Studied in 17 unrelated North American Caucasians. 3.5 kb allele (A1): 0.50 2.5 kb, 1.0 kb allele (A2): 0.50

NOT POLYMORPHIC FOR: AluI, ApaI, BamHI, BglI, BglII, Bsp1286, DraI, EcoRI, HaeIII, HincII, HinfI, PstI, PvuII, ScaI, SphI, SstI, StuI, XbaI with DNA from 7 unrelated North American Caucasians.

MENDELIAN INHERITANCE: Co-dominant segregation observed in 5 Caucasian families (26 individuals).

PROBE AVAILABILITY: Generally available.

REFERENCES: 1) Lawn et al., Cell (1978) 15:1157-1174. 2) Korneluk et al., J. Biol. Chem. (1985) 259:13819-13823.

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