Three RFLPs associated with the human α_2 -macroglobulin gene (A2M)

Peter Marynen*, Graeme I. Bell⁺ and Luigi L. Cavalli-Sforza*

*Department of Genetics, Stanford University School of Medicine, Stanford, CA 94305, and ⁺Chiron Corporation, Emeryville, CA 94608, USA

SOURCE AND DESCRIPTION OF THE CLONE: pha2ml containing a 2.1 kb cDNA insert encoding amino acids 809-1451 of α_2 -macroglobulin was isolated from a human liver cDNA library by Bell et al. (1985).

POLYMORPHISMS: HaeIII detects a two-allele polymorphism with bands at 2 kb and 1.7 kb. HinfI detects two allelic fragments of .9 kb and .6 kb. PvuII reveals two allelic fragments of 8.5 kb and 8 kb.

FREQUENCIES:

HaeIII (27 Caucasians)	1.7 kb allele: .74, 2.0 kb allele: .26
HinfI (27 Caucasians)	.6 kb allele: .55, .9 kb allele: .45
PvuII (17 Caucasians)	8 kb allele: .70, 8.5 kb allele: .30

NOT POLYMORPHIC FOR: ApaI, BanII, BglI, BstNI, DraI, EcoRV, HindIII, KpnI, MspI, PstI, SacI, ScaI, StuII, XbaI, XmnI, with a panel of 9 unrelated individuals.

CHROMOSOMAL LOCALISATION: Chromosome 12 using a panel of somatic cell hybrids (Bell et al. 1985).

MENDELIAN INHERITANCE: Co-dominant segregation shown in 5 informative families (35 individuals) for HaeIII and HinfI and 2 informative families (20 individuals) for PvuII.

PROBE AVAILABILITY: Freely available.

OTHER COMMENTS: Our data indicate that the RFLP's by HaeIII, HinfI and PvuII are caused by independent mutational events.

REFERENCE: Graeme I. Bell, Leslie B. Rall, Ray Sanchez-Pescador, James D. Merryweather, James Scott, Roger L. Eddy and Thomas B. Shows, Somat. Cell Molec. Genet.: 11(3), 285-299, 1985.

ACKNOWLEDGEMENTS: Supported by the National Science Foundation (Belgium), N.A.T.O. International Fellowship, NIH 1 F05 TW03579-01, and NIH GM 28428.