Dinucleotide repeat polymorphism at the human ankyrin gene (ANK1)

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Source/Description: The polymorphic $(AC)_n$ repeat begins at base pair 6304 of the human ankyrin gene on chromosome 8p11.1−21.1 (1). The polymorphism can be typed using the polymerase chain reaction (PCR) as described previously (2). The predicted length of the amplified sequence was 109 bp.

Primer Sequences: TCCCAGATCGCTCTACATGA (AC strand); CACAGCTTCAGAAGTCACAG (TG strand).

Frequency: Estimated from 50 chromosomes of unrelated individuals. Observed heterozygosity = 54%. PIC = 0.45.

Allele (bp)	Frequency
A1 113	0.40
A2 111	0.04
A3 109	0.02
A4 107	0.54

Mendelian Inheritance: Co-dominant segregation was observed in two informative families.

Chromosomal Localization: The human ankyrin gene has been assigned to chromosome 8p11.1−21.1 (1).

Other Comments: The PCR reaction was performed on 80 ng of genomic DNA using 100 pmoles of each oligonucleotide primer. The samples were processed as described (3) except that the denaturation cycle at 94°C was extended to 1.4 minutes. The dinucleotide repeat was based on a $(AC)_{14}$ sequence.

References: 1) Lux,S.E. (1990) *Nature* **344**, 36−42. 2) Weber,J.L. and May,P.E. (1989) *Am. J. Hum. Genet.* **44**, 388−396. 3) Weber,J.L. *et al.* (1990) *Nucl. Acids Res.* **18**, 4637.

Identification of a polymorphism in human CD44

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Source/Description of Clone: A single copy of 2.2 kb EcoRI fragment from clone PBL-32 specific for human CD44 polypeptide (1).

Polymorphism: HindIII identifies a two-allele polymorphism with A1 = 7.3 kb and A2 = 1.9 kb, with constant bands at 6.4, 5.6, 3.5, 2.8 and 1.7 kb (see Fig.).

Frequency: Estimated in 57 unrelated Caucasians:
A1 (7.3 kb) : 0.61
A2 (1.9 kb) : 0.39
Estimated in 10 unrelated Orientals:
A1 (7.3 kb) : 0.15
A2 (1.9 kb) : 0.85.

Not Polymorphic For: EcoRI, SacI, PvuII, ApaI, PstI.

Chromosomal Localization: The CD44 gene has been mapped to chromosome 11, at p13 (2).

Mendelian Inheritance: Co-dominant segregation shown in 15 three-generation CEPH families.

Probe Availability: Contact Dr. E.C. Butcher, Stanford University, CA.

Other Comments: Wash stringency of 0.2×SSC, 0.1% SDS at 55°C.

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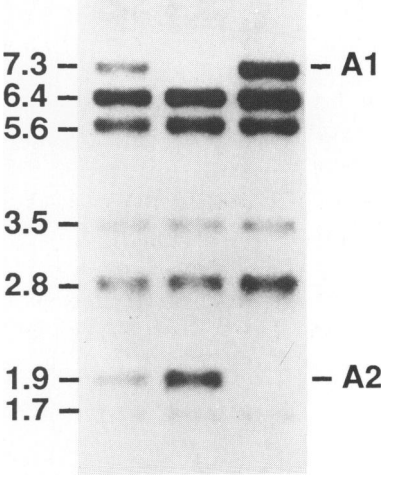
References: 1) Zhou,D.F., Ding,J.F., Picker,L.J., Bargatze,R.F., Butcher,E.C. and Goeddel,D.V. (1989) *J. Immunol.* **143**, 3390−3395. 2) Ala-Kapee,M., Forsberg,U.H., Jalkanen,S. and Schroder,J. (1989) HGM **10**, A2660.



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