BamHI and MspI RFLP's in strong linkage disequilibrium at the medium chain acyl-Coenzyme A dehydrogenase locus (ACADM chromosome 1)*

Alexandra I.F.Blakemore, Paul C.Engel and Diana Curtis¹

Department of Molecular Biochemistry and Biotechnology (Biochemistry Section) and ¹Sub-Department of Medical Genetics, University of Sheffield, Sheffield S10 2TN, UK

Source/Description: A 1.9 Kb SalI-HindIII fragment containing the entire cDNA clone encoding the human liver ACADM gene (1) subcloned into pGEM-3 (Promega Biotec).

Polymorphism: This probe identifies a 2-allele BamHI polymorphism with bands at 10 Kb (allele 2) and 5.5 Kb (allele 1): constant bands are present at >12 Kb, 7 Kb and 2.8 Kb. In addition a 2-allele MspI polymorphism with bands at 10 Kb (allele 1) and 9 Kb (allele 2) can be identified. Constant bands between 3–6 Kb may be present.

Frequency: Estimated from 30 unrelated Caucasians.

BamHI	allele 1 0.63	allele 2 0.37
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MspI	allele 1 0.64	allele 2 0.36
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Not Polymorphic For: HinfI, MboI, XbaI, EcoRV, AvaII, BglII, KpnI, PvuII

Chromosomal Localisation: The ACADM locus has been assigned to 1p31 (2).

Mendelian Inheritance: Co-dominant segregation in a family with 18 individuals.

Probe Availability: Contact (1).

Other Comments: There is very strong linkage disequilibrium between the BamHI allele 2 and MspI allele 2 RFLPs with a frequency >80%. A high stringency wash (0.1 SSC + 0.1% SDS at 65°C) is required to resolve the MspI constant bands.

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References: 1) Kelly,D.P. *et al.* (1987) *Proc. Natl. Acad. Sci. USA* **84**, 4068–4072. 2) Matsubara *et al.* (1986) *Proc. Natl. Acad. Sci. USA* **83**, 6543–6547.

PstI RFLP at the medium chain acyl-Coenzyme A dehydrogenase locus (ACADM chromosome 1)*

Alexandra I.F.Blakemore, Paul C.Engel and Diana Curtis¹

Department of Molecular Biochemistry and Biotechnology (Biochemistry Section) and ¹Sub-Department of Medical Genetics, University of Sheffield, Sheffield S10 2TN, UK

Source/Description: A 1.9 Kb SalI-HindIII fragment containing the entire cDNA clone encoding the human liver ACADM gene (1) subcloned into pGEM-3 (Promega Biotec).

Polymorphism: This probe identifies a 2-allele PstI polymorphism with bands at 5.0 Kb (allele 1) and 3.5 Kb (allele 2). Constant bands are detected at 9.5 Kb, 8 Kb, 6.2 Kb, 2.2 Kb and 1.2 Kb.

Frequency: Estimated from 30 unrelated Caucasians.

allele 1 0.61

allele 2 0.39

Not Polymorphic For: HinfI, MboI, XbaI, EcoRV, AvaII, BglII, KpnI, PvuII

Chromosomal Localisation: The ACADM locus has been assigned to 1p31 (2).

Mendelian Inheritance: Co-dominant segregation in a family with 18 individuals.

Probe Availability: Contact (1).

Other Comments: Linkage disequilibrium with BamHI and MspI RFLPs does not occur (3).

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References: 1) Kelly,D.P. *et al.* (1987) *Proc. Natl. Acad. Sci. USA* **84**, 4068–4072. 2) Matsubara *et al.* (1986) *Proc. Natl. Acad. Sci. USA* **83**, 6543–6547. 3) Blakemore *et al.* (1989) *Nucl. Acids Res.* **18**, ?–?.