Single copy probe CRI-L114 (D4S110) maps to 4p16.1

B.Weiffenbach, M.Altherr¹ and J.Wasmuth¹

Collaborative Research, Two Oak Park, Bedford, MA 01730 and ¹Department of Biological Chemistry, University of California, Irving, CA 92717, USA

Source/Description: The probe was isolated from a genomic charon 4A library (1). Insert size 10–15 kb.

Polymorphism: The probe detects a two allele polymorphism with HindIII. The variable fragments are: allele 1 at 5.0 kb and allele 2 at 3.7 and 1.7 kb. Invariant bands are seen at 3.5, 3.4, 3.3, and 1.6 kb. The probe detects polymorphisms with MspI and PvuII. MspI RFLP is not in linkage disequilibrium with HindIII RFLP.

Frequency: The following frequency was seen for the HindIII RFLP in 46 unrelated Caucasians:

A1	5.0 kb allele	0.46
A2	3.7 kb + 1.7 kb allele	0.54

Not Polymorphic For: BamHI, BglII, EcoRI, RsaI, and TaqI.

Chromosomal Localization: The probe has been localized to 4p16.1 by somatic cell hybrids (2) and is genetically linked to other chromosome 4 markers (3).

Mendelian Inheritance: Co-dominant inheritance of the HindIII RFLP was seen in 20 multigenerational CEPH families.

Probe Availability: Probe is available for research use. Contact G. Vovis, Collaborative Research.

References: 1) Lawn *et al.* (1978) *Cell* **15**, 1151–1174. 2) Smith, B. *et al.* (1988) *Am. J. Hum. Genet.* **42**, 335. 3) Donis-Keller *et al.* (1987) *Cell* **51**, 319–337.

Cosmid probe CRI-C47 (D4S117) maps to 4p16.1

B.Weiffenbach, M.Altherr¹ and J.J.Wasmuth¹

Collaborative Research, Two Oak Park, Bedford, MA 01730 and ¹Department of Biological Chemistry, University of California, Irving, CA 92717, USA

Source/Description: The probe was isolated from a genomic cosmid library (1). Insert size 35–40 kb.

Polymorphism: The probe detects a two allele polymorphism with BamHI. The variable fragments are: allele 1 at 10 kb and allele 2 at 5.2 and 4.5 kb. Invariant bands are seen at 5.2, 3.7, 2.8, 2.5, 1.8, and 1.5 kb. The probe detects polymorphisms with BglII and MspI which are in linkage disequilibrium with the BamHI RFLP.

Frequency: The following frequency was seen for the BamHI RFLP in 70 unrelated Caucasians:

A1	Allele 1 (10 kb)	0.63
A2	Allele 2 (5.2 + 4.5 kb)	0.32

Not Polymorphic For: EcoRI, HincII, HindIII, PstI, RsaI, and TaqI.

Chromosomal Localization: The probe has been localized to 4p16.1 by somatic cell hybrids (2) and is genetically linked to other chromosome 4 markers (3).

Mendelian Inheritance: Co-dominant inheritance of the BamHI RFLP was seen in 12 multigenerational CEPH families.

Probe Availability: Probe is available for research use. Contact G. Vovis, Collaborative Research.

Other Comments: Probe contains repetitive sequences and must be prehybridized with human DNA (1). Insert can be removed from vector by digestion with EcoRI.

References: 1) Bowden, D. *et al.* (1989) *Am. J. Hum. Genet.* **44**, 671–678. 2) Smith, B. *et al.* (1988) *Am. J. Hum. Genet.* **42**, 335. 3) Donis-Keller, H. *et al.* (1987) *Cell* **51**, 319–337.