Multiple RFLPs demonstrated for epidermal growth factor receptor (EGFR) on chromosome 7

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Source/Description: HER-A64 is a 4.0kb single copy fragment isolated from a placental cDNA library including the coding region and a portion of 3' untranslated EGFR. (A. Ullrich et al, 1984).

Polymorphism: Two allele polymorphisms were identified with HaeIII, HindIII, MboI, PstI, StuI, and XbaI.

Frequency in 50 Caucasians: HaeIII 2.6kb/1.7kb - 0.05/0.95 PstI 10kb/8kb - 0.80/0.20 HindIII 12.5kb/10kb - 0.80/0.20 StuI 20kb/13kb - 0.60/0.40 MboI 2.6kb/2.3kb - 0.07/0.93 XbaI 12kb/10kb - 0.80/0.20

Not polymorphic for EcoRI, BglI, BglII, BanII, HincII, and KpnI with DNA from seven unrelated Caucasians.

Chromosomal Location: Probe localized to 7p13-7q22 using somatic cell hybrids (Kondo and Shimuzu, 1983).

Mendelian Inheritance: Codominant segregation and Hardy-Weinberg equilibria demonstrated in 10 informative families (see figure).

Probe Availability: Contact A. Ullrich, Genentech, Inc., South San Francisco, California.

Other Comments: Numerous dark and light cross-hybridizing bands are seen with most enzymes and high stringency washes should be used.

Reference: Ullrich, A. et al, <u>Nature</u> 309:418, 1984. Kondo, J. and Shimuzu, N., <u>Cytogenet Cell Genet</u> 35:9-14, 1983.

Acknowledgements: JCM was supported by a Basil O'Conner starter research award and NIH grant HD20998. The probe was generously supplied by A. Ullrich. Cathy DeHaven provided excellent technical assistance.