Improved visualization of the Bst EII RFLP of the human LDL receptor gene by co-digestion

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Bst EII identifies a bi-allelic polymorphism in the human LDL receptor gene (1). The 33kb allele cannot readily be distinguished from the 24kb fragment in the heterozygote using a 0.6 agarose gel. Lower percentage gels often cause handling problems. We suggest co-digestion of DNA with non-polymorphic enzymes such as Eco RI (or Bam HI). Figure 1 shows an autoradiograph of a Southern blot where genomic DNA was co-digested with Bst EII and Eco RI using the pLDLR-2HH1 probe (2) for the LDL receptor gene. The restriction map of fragment sizes in Figure 2 is derived from reference 3 and from DNA double digests using sets of different restriction enzymes. (The polymorphic site for Bst EII is located in the intron separating exons 12 and 13.) Bst EII and Eco RI generate fragments of 4, 5, and 12kb, or 3, 4, 5 and 9kb that are easily recognised in a heterozygote.

Fig. 1

Fig. 2

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