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SHORT COMMUNICATION

A Pst I Restriction Fragment Length Polymorphism near the MAO locus on Xp

P. V. SALENGER[1], P. HUEBER[1], P. J. SPELLER[1], G. VAN DUIJNHOVEN[2], R. R. HOOPES, Jr.[1], R. V. THAKKER[3], W. BERGER[4] AND S. J. SCHEINMAN[1]

[1] *Department of Medicine, SUNY Health Science Center, Syracuse, NY, USA*
[2] *Department of Human Genetics, University Hospital Nijmegen, Nijmegen, The Netherlands*
[3] *MRC Molecular Endocrinology Group, Royal Postgraduate Medical School-Hammersmith Hospital London, UK*
[4] *Max-Planck Institut fur Molekulare Genetik, Berlin, Germany*

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We report a Pst I polymorphism located within the peri-centromeric region of the short arm of the X-chromosome (Xp).

A Restriction Fragment Length Polymorphism (RFLP) with fragment sizes of 5·1 kb (allele 1) and 3·8 kb (allele 2) was detected in human DNA samples subjected to digestion with Pst I. The plasmid PD8/27 (DXS1702), generated by Alu-PCR on radiation-reduced cells hybrids (Berger et al. 1992a), was used as the probe in the hybridization of Southern blots containing Pst I-digested human DNA.

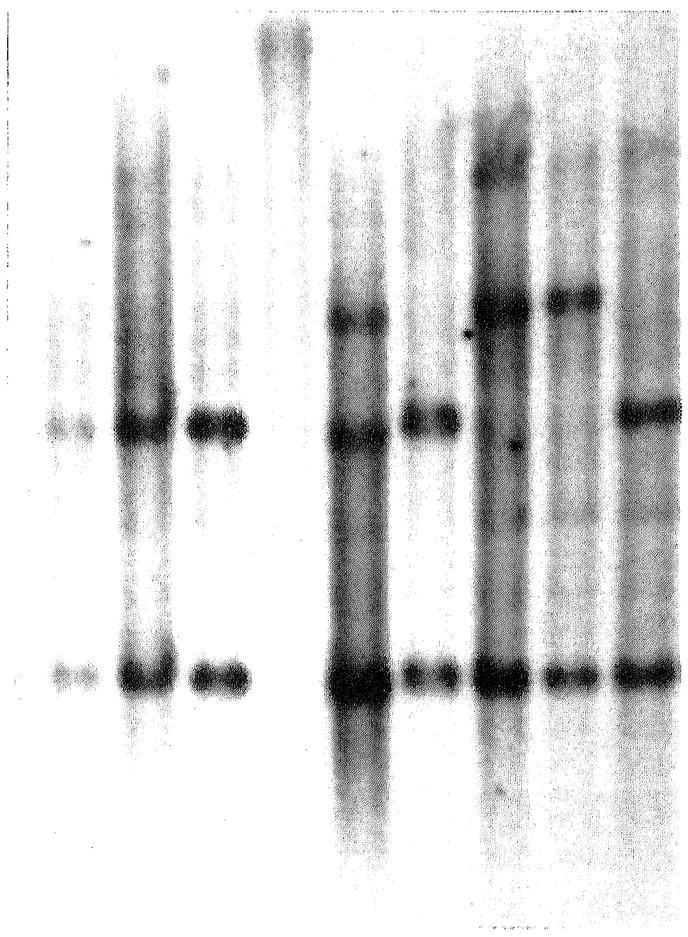

Fig. 1. The Pst I polymorphism. DNA (5 μg) from each individual was digested with Pst I and electrophoresed on a 20 cm 0·8% agarose gel at 40 V for 21 hours.

The location of the PD8/27 probe was previously refined to a 640 kb YAC that also contains the DXS7, MAOA and MAOB loci (in the Xp 11·4–11·2 region) (Berger et al. 1992b).

The frequency of occurrence of the Pst 1 alleles was examined in 69 chromosomes from unrelated individuals. The frequency of the 5·1 kb allele was 0·347, and the frequency of the 3·8 kb allele was 0·652. Mendelian segregation was noted in three three-generation families and one four-generation family studied.

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