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Polymorphisms of three new microsatellite sites of the dystrophin gene

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ABSTRACT. To look for novel microsatellites in the dystrophin gene for the diagnosis of Duchenne muscular dystrophy, candidate microsatellite sites in the dystrophin gene were analyzed with the SSRHunter software and were also genotyped. Among the 15 candidate microsatellite sites, three novel microsatellite sites in the 60th, 30th, and 2nd intron were found to have a high degree of polymorphism. We submitted these three new loci to the European Molecular Biology Laboratory, under accession Nos. FN547040, FN547041 and FN557526, which were called DXSDMD-in60, DXSDMD-in30 and DXSDMD-in2, respectively. In these three loci, we found 9, 6 and 11 alleles, respectively, in the 205 individuals. In addition, we also detected 20, 19 and 20 genotypes for the three loci in female samples, with a polymorphism information content of more than 0.600. In conclusion, the three microsatellite sites in the intron region of the

dystrophin gene have a high degree of polymorphism, and they can be used in population genetics, as well as to provide a theoretical basis for genetic diagnosis and elucidation of molecular mechanisms in Duchenne muscular dystrophy.

Key words: Duchenne muscular dystrophy; Dystrophin gene; Microsatellite; Polymorphism; Han population genetics

