

F811

Allelic Distribution of Four STR Loci (vWF, TH01, TPOX, CSF1PO)
in Korean Population Using Amp-FLP Techniques.

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The short tandem repeats (STR) region are informative markers for the genetic characterization of individuals and personal identification in forensic science. In this study, the allelic distribution of four tetranucleotide repeat STR loci ; vWF, TH01, TPOX, CSF1PO have been determined by amplified fragment length polymorphism (Amp-FLP) from unrelated Korean individuals. The results showed that our population data satisfied Hardy-Weinberg equilibrium expectations. Some statistical value which determine the usefulness of each locus for forensic identification were also determined. The results from this research are in use nowadays in forensic identification of our laboratory.

F812

**Molecular Cloning and Characterization of the Heat Shock-
Cognate Protein 70 (HSC 70) Gene from a Hermaphroditic Fish,
*Rivulus marmoratus***

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The fact that *Rivulus marmoratus*, a hermaphroditic fish, could survive such adverse environments as wide range pH (3.5-11.5), excess H₂S, typhoon, dryness, and low oxygen, suggests that this fish may have stringent defense mechanisms to the diverse environmental stresses. As an effort to elucidate the defence mechanisms for the environmental stresses as well as to develop a fish model to study early development and differentiation at the molecular level, we demonstrated the molecular cloning of stress protein-coding gene. Three positive clones for the human hsp 70 cDNA probe were initially screened out from the *R. marmoratus* genomic clone bank by using shot gun plaque hybridization protocol. We finished 11 kb nucleotide sequencing from one clone which had 14 kb insert DNA. By homology search of the sequenced nucleotides to the known data library, it was turned out that this clone contained the full length *R. marmoratus* hsc 70 gene that consisted of 9 exons and 8 introns, within 7 kb long. The gene structure as well as nucleotide and the deduced amino acid sequences were quite homologous to those known in other fish. Data for the developmental, tissue-specific expression profile as well as stress-inducibility of *R. marmoratus* hsc 70 gene will also be presented.