POWERPLEX® EURO

Announcing the New PowerPlex® European Systems

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The loci in the new PowerPlex® European systems align with the new ENFSI and EDNAP recommendations. Multiple configurations will be available to meet the varying customer and country requirements.

DNA database content and information sharing across European countries is expected to grow at a rapid pace, mainly in response to the Treaty of Prüm. This increase will directly increase the likelihood of obtaining random matches. To minimize this effect and add uniformity to the submitted data, the ENFSI and EDNAP have made a recommendation to extend the loci included in the current European Standard Set (see the article by Dr. Peter Schneider in this issue). Since a large percentage of casework samples include minimal amounts of DNA or degraded DNA, the recommendation requires the inclusion of mini STR loci (i.e., amplicon sizes of 150 bp or less).

The PowerPlex® European systems were developed to align with these recommendations. They will allow co-amplification and four-color detection of the following loci: D2S441, D10S1248, D22S1045, D12S391, D1S1656, D2S1338, D16S539, D3S1358, D18S51, D8S1179, D19S433, D21S11, TH01, vWA, FGA and Amelogenin with or without SE33. For added convenience, the PowerPlex® European systems will provide the materials necessary, including hot-start *Taq* DNA polymerase, for amplification and STR analysis of purified genomic DNA. To meet varying customer and country requirements, multiple configurations will be available (an example is shown in Figure 1).

The PowerPlex® European systems will meet the objectives of the ENFSI recommendation for the required new loci. Additionally, an improved buffer system will provide increased resistance to inhibitors. The kits exhibit increased sensitivity to allow full profiles from low-level DNA samples and are robust enough to genotype degraded DNA samples through the use of mini STRs. These kits are currently undergoing customer testing and should be available in late 2009.

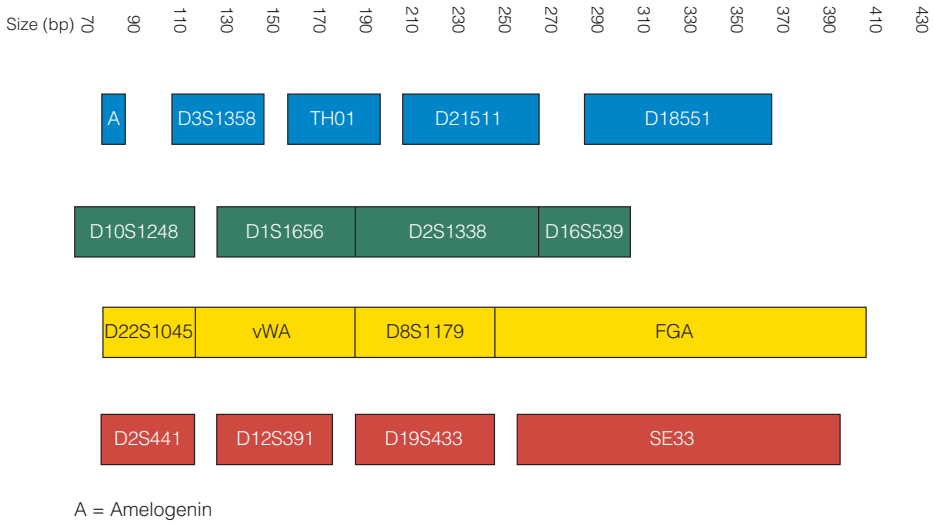

Figure 1. Proposed PowerPlex® European System design (offered with and without the SE33 locus).