

VALIDATION OF THE POWERPLEX® Y SYSTEM

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With the aim of using Y-chromosomal polymorphic markers in Swiss crime cases and deficiency paternity cases, a validation study of the PowerPlex® Y System (Promega) was performed. The PowerPlex® Y system is a commercial multiplex system that allows for the coamplification and three color detection of 12 Y-STR loci. In this study, we present the results of some forensic validation studies including the following aspects: (1) sensitivity, (2) evaluation of stutter bands, (3) specificity study for different amounts of female DNA, (4) analysis of female/male mixtures, (5) analysis of male/male mixtures and finally (6) for our paternity cases, validation of our protocol consisting of the analysis of blood on FTA cards.