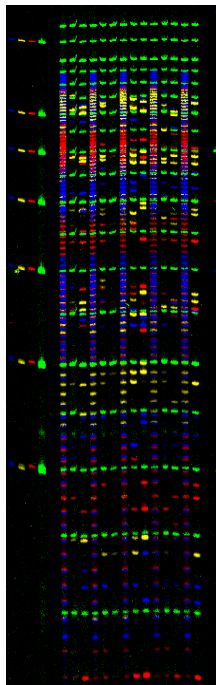


FMBIO® III/Plus Imager Application

Promega's PowerPlex® 16 System

4-Color
Overlap Image



Fluorescein
Labeled Loci



JOE
Labeled Loci



TMR
Labeled Loci



These gel images, run on an FMBIO III Plus Imaging System, show the 16 different loci (fifteen STR loci and Amelogenin) generated from Promega's PowerPlex 16 System for human identification applications. The sixteen different loci are Penta E, D18S51, D21S11, TH01, D3S1358, FGA, TPOX, D8S1179, vWA, Amelogenin, Penta D, CSF1PO, D16S539, D7S820, D13S317 and D5S818.

PowerPlex 16 amplified samples and Allelic Ladders were kindly provided by Promega. Loading solutions of 1 uL of samples or ladders were mixed with 0.5 uL CXR molecular standards and 1.5 uL Bromophenol Blue loading solution. These were then denatured at 95 °C for 2 minutes. Approximately 1.5 ul was loaded onto a 6% GenePAGE PLUS gel and run 1 hr and 40 min. on a SA47 Gel apparatus before scanning on the FMBIO III Plus Imaging System.

When using the PowerPlex 16 system with the FMBIO III Plus Imaging systems, Table 1 depicts the individual settings for each locus and dye combination used with this system. The gel was scanned in triplicate at a 100 um resolution to improve signal quality. The 4-color overlap image shows the power and convenience of MiraiBio Image Analysis software for data analysis.

These images definitively show that Promega's PowerPlex 16 System can be effectively used in combination with MiraiBio's FMBIO III Imaging systems.

Table 1: FMBIO III Plus Parameters

	Loci	Dye	Filter	Laser	PMT
Channel 1	FGA, TPOX, D8S1179, vWA, Amelogenin	TMR	598 nm	532 nm	100%
Channel 2*	ILS 600*	CXR	650 nm	532 nm	100%
Channel 3	Penta E, D18S51, D21S11, TH01, D3S1358	FL	520 nm	488 nm	100%
Channel 4	Penta D, CSF1PO, D16S539, D7S820, D13S317, D5S818	JOE	555 nm	532 nm	100%

* The ILS 600 standards' image is not shown.