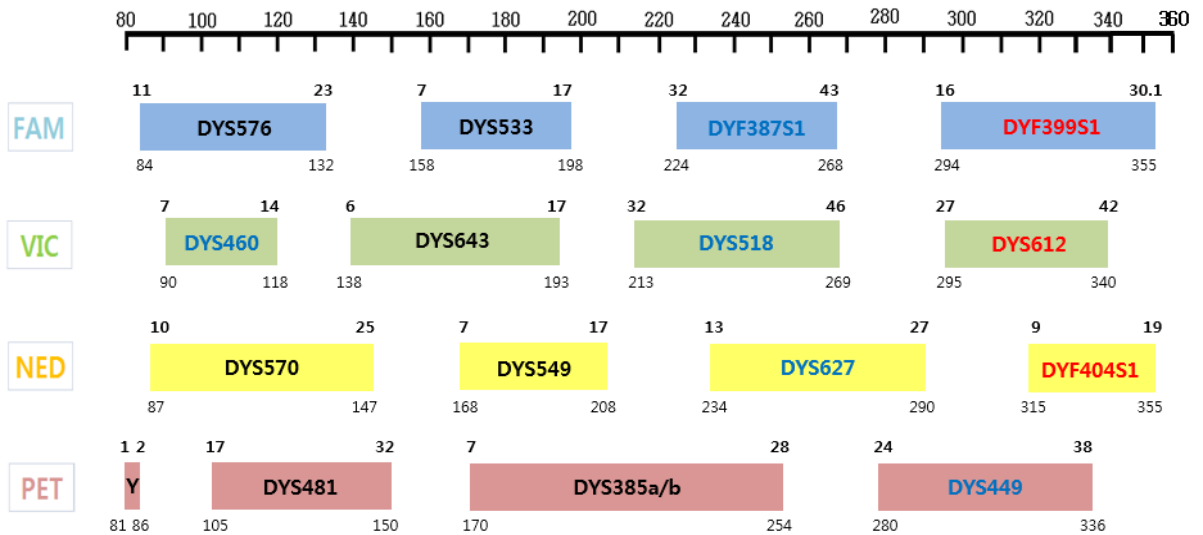




Euplex-Y17 PCR System Protocol

Allelic size range for 17 Y-STR loci:



5 X Primer Mix for Multiplex PCR:

STR loci		Primer Sequence (5'→3')	Conc. (µM)
DYS576	F	FAM -GCG TAT TTG TCT TGG CTY TTT C	1.70
	R	GCA AGA CCT CAT CTC TGA ATA AAA	1.70
DYS533	F	FAM -TCT TCT ACC TAT CAT CTT TCT AGC	1.50
	R	ACG CTG TTA TTT CAT GGC TGT	1.50
DYF387S1	F	GTC CAT TTT ACC CCT AAC AAG AAA	3.25
	R	FAM -GCC ACA GTG TGA GAA GTG TGA	3.25
DYF399S1	F	FAM -GAA CCA AGG GAA ATG TGG AA	4.00
	R	GCG ACA TTC CTC TTC AAT GC	4.00
DYS460	F	GTC ATC TAT CCT CTG CCT ATC ATT T	0.90
	R	VIC -GAG GAA TCT GAC ACC TCT GAC A	0.90
DYS643	F	GTC TGA TTT TTG CAG GTG TTC	1.80
	R	VIC -GTA ACC AAA CAC CAC CCA TTC	1.80
DYS518	F	VIC -GGC AAC ACA AGT GAA ACT GC	4.50
	R	GCC TTC TTT TCC CTC CTT CCT	4.50
DYS612	F	VIC -AGA GCC AAA AAG GGA ACT GA	4.75
	R	GTC AAC CAA CCA CTA ACC AAC A	4.75



Euplex-Y17 PCR System Protocol (Continued)

5 X Primer Mix for Multiplex PCR (Continued):

STR loci		Primer Sequence (5'→3')	Conc. (μM)
DYS570	F	NED -AAG CTG AAA TGC AGA TAT TCC C	2.10
	R	GCT GTG TCC TCC AAG TTC CT	2.10
DYS549	F	NED -TGT GTG CAT AGA GGT GTT CAG A	3.50
	R	AGG TAG GTA AAG AGG AAG ATG A	3.50
DYS627	F	GCC TTT CAT TCT CTC CTT CGT	4.00
	R	NED -GCG CAG GAT TCC ATC TAA AA	4.00
DYF404S1	F	NED -CCT GGT AAT CTT CCA AAA TCG T	3.25
	R	GAA AGA TCA AAG GAG CCC AG	3.25
Y-M175	F	AAA CTC TCT GAA TCA GGC ACA	2.50
	R	PET -TGA TAC CTT TTT TTC TAC TGA TAC CTT T	2.50
DYS481	F	PET -CTC ACC AGA AGG TTG CAA GAC	1.00
	R	AGG AAT GTG GCT AAC GCT GT	1.00
DYS385	F	GGA AGG AGA AAG AAA GTA AAA AAG AA	7.25
	R	PET -TTC CAA TTA CAT AGT CCT CCT TTC T	7.25
DYS449	F	PET -GCC TGT TCT ATG AAT ATT TTC CCT	4.00
	R	GGG ACA ACA AGA GTA AGA CAG AAA	4.00

Reagents Needed:

- 5 X Primer Mix for Euplex-Y17 system
- Gold ST*R 10 X Buffer (Promega, Madison, WI)
- AmpliTaq Gold® DNA Polymerase (Applied Biosystems, Foster City, CA)

PCR Mixture:

PCR Component	Vol. (μL)
dH ₂ O	5.4
5 X Primer Mix	2.0
10 X Gold ST*R Buffer	1.0
AmpliTaq Gold (5 U/μL)	0.6
Template DNA (1ng/μL)	1.0
Total	10.0

Thermal Cycling:

95°C for 11 minutes, then:

94°C for 20 seconds

60°C for 60 seconds

72°C for 45 seconds

for 29 cycles, then:

60°C for 30 minutes

4°C soak



Euplex-Y17 PCR System Protocol (Continued)

Capillary Electrophoresis

Materials and Reagents Needed:

- Dry heating block or thermal cycler
- 3130 capillary array, 36 cm (Applied Biosystems, Foster City, CA)
- Performance Optimized Polymer (POP4, Applied Biosystems, Foster City, CA)
- GeneScan™ 500 LIZ™ Size Standard
- Hi-Di™ Formamide (Applied Biosystems, Foster City, CA)

Mixture for CE run:

GeneScan™ 500 LIZ™ Size Standard	0.2 µL
Hi-Di™ Formamide	10.0 µL
PCR product	1.0 µL

Denaturation:

95°C for 5 minutes
4°C soak

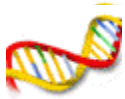
3130 Data Collection Software:

Application type	HID
Injection voltage	3.0kV
Injection time	5 seconds
Run time	23 minutes

Download a PDF copy of
this protocol:



<http://forensic.yonsei.ac.kr/protocols.html>



Genotyping result of 2800M control DNA

