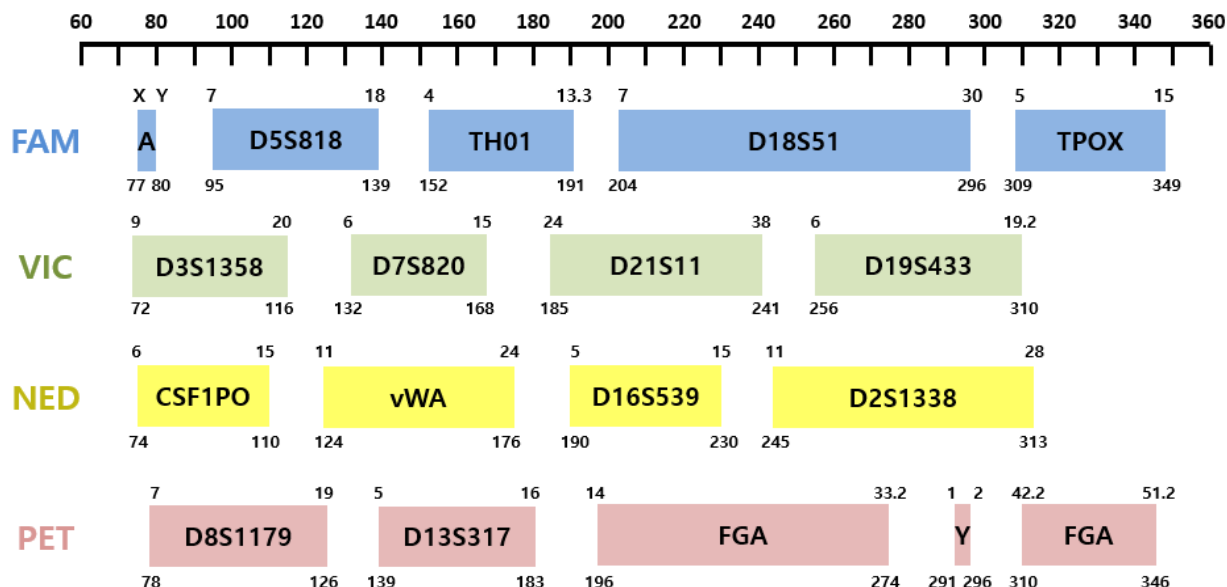


Kplex-17 PCR System Protocol

Allelic size range for Kplex-17 system



5 X Primer Mix for Multiplex PCR

Locus	Primer Sequence (5'→3')	Conc. (μM)
Amelogenin	F FAM-CCC CTT TGA AGT GGT ACC AGA G	2.50
	R GCA TGC CTA ATA TTT TCA GGG AAT AA	2.50
D5S818	F FAM-AGG GTG ATT TTC CTC TTT GGT	3.50
	R ATC TTT ATC TGT ATC CTT ATT TAT ACI TCT ATC T	3.50
TH01	F FAM-GAT TCC CAT TGG CCT GTT C	0.85
	R CTC CTG TGG GCT GAA AAG C	0.85
D18S51	F GGG AGA TGT CTT ACA ATA ACA GTT GC	3.50
	R FAM-CAG CTA CTT GCA GGG CTG A	3.50
TPOX	F FAM-CAC TAG CAC CCA GAA CCG TC	1.10
	R AAG CAC TCT CGT GTT TGC GT	1.10
D3S1358	F GAG CAA GAC CCT GTC TCA TAG A	1.40
	R VIC-TCA ACA GAG GCT TGC ATG TAT	1.40
D7S820	F GTG TCA TAG TTT AGA AYG AAC TAA C	2.10
	R VIC-CTC ATT GAC AGA ATT GCA CCA	2.10
D21S11	F VIC-AAT TCC CCA AGT GAA TTG CC	4.50
	R GTC AAT GTT CTC CAG AGA CAG ACT A	4.50
D19S433	F VIC-CAG CCT GGG CAA CAG AAT AA	2.75
	R CCT GGG GTT CTA GGA ATC AA	2.75

Kplex-17 PCR System Protocol (Continued)

5 X Primer Mix for Multiplex PCR (Continued)

Locus		Primer Sequence (5'→3')	Conc. (μM)
CSF1PO	F	ACT GCC TTC ATA GAT AGA AGA T	0.90
	R	NED -GAC CCT GTT CTA AGT ACT TCC T	0.90
vWA	F	NED -GAA TAA TCA GTA TGT GAC TTG GAT TG	4.25
	R	AGG TTA GAT AGA GAT AGG ACA GAT GA	4.25
D16S539	F	GAA GAA TCC AGA AAA CCA CAG	1.40
	R	NED -TTT AGC GTT TGT GTG TGC ATC	1.40
D2S1338	F	NED -CAT AAT CCA GCT GTG GGA GG	4.25
	R	CTT CCC TGT CTC ACC CCT TT	4.25
D8S1179	F	PET -TTT TTG TAT TTC ATG TGT ACA TTC GT	3.25
	R	GTA GAT TAT TTT CAC TGT GGG GAA	3.25
D13S317	F	PET -TGG ACT CTG ACC CAT CTA ACG	3.50
	R	GCT CCT CCT TCA ACT TGG GTT	3.50
FGA	F	PET -CAA ATG CCC CAT AGG TTT TG	2.50
	R	AAT ATG GTT ATT GAA GTA GCT GCT G	2.50
Y-M175	F	AGT GCT CTG TGA CAT ACC AAT CA	4.25
	R	PET -TTG CAG CAT TTT CAG TTA GCC	4.25

Reagents Needed

- 5 X Primer Mix for Kplex-17 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
Gold ST [*] R 10 X Buffer	1.0
AmpliTaq Gold (5 U/μL)	0.6
Template DNA (1 ng/μL)	1.0
Total	10.0

Thermal Cycling

95°C for 11 minutes, then:

94°C for 20 seconds
 59°C for 60 seconds
 72°C for 45 seconds
 for 29 cycles, then:

60°C for 30 minutes
 4°C soak

Kplex-17 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	3.0 kV
Injection Time	5 seconds
Run Time	22 minutes

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this protocol



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

Genotyping result of 2800M control DNA

