

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

APPENDIX

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Identifiler loci and approximate size range

Identifiler locus	Color	Size Range 3130xl GS500 Std.	Allele range in Ladder
D8S1179	Blue	123.0bp \pm 0.5bp To 169.0 \pm 0.5bp	8 to 19
D21S11	Blue	185.0bp \pm 0.5bp To 216.0 \pm 0.5bp	24 to 38
D7S820	Blue	255.0bp \pm 0.5bp To 291.0 \pm 0.5bp	6 to 15
CSF1PO	Blue	305.0bp \pm 0.5bp To 342.0 \pm 0.5bp	6 to 15
D3S1358	Green	112.0bp \pm 0.5bp To 140.0 \pm 0.5bp	12 to 19
THO1	Green	163.0bp \pm 0.5bp To 202.0 \pm 0.5bp	4 to 13.3
D13S317	Green	217.0bp \pm 0.5bp To 244.0 \pm 0.5bp	8 to 15
D16S539	Green	252.0bp \pm 0.5bp To 292.0 \pm 0.5bp	5 to 15
D2S1338	Green	307.0bp \pm 0.5bp To 359.0 \pm 0.5bp	15 to 28
D19S433	Yellow	102.0bp \pm 0.5bp To 135.0 \pm 0.5bp	9 to 17.2
vWA	Yellow	154.0bp \pm 0.5bp To 206.0 \pm 0.5bp	11 to 24
TPOX	Yellow	222.0bp \pm 0.5bp To 250.0 \pm 0.5bp	6 to 13
D18S51	Yellow	262.0bp \pm 0.5bp To 345.0 \pm 0.5bp	7 to 27
Amelogenin	Red	106.0bp \pm 0.5bp To 112.0 \pm 0.5bp	X and Y
D5S818	Red	134.0bp \pm 0.5bp To 172.0 \pm 0.5bp	7 to 16
FGA	Red	214.0bp \pm 0.5bp To 355.0 \pm 0.5bp	17 to 51.2

Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.

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MiniFiler loci and approximate size range

MiniFiler locus	Color	Size Range 3130x/ GS500 Std.	Allele range in Ladder
D13S317	Blue	90.0bp \pm 0.5bp To 139.0 \pm 0.5bp	8 to 15
D7S820	Blue	141.5bp \pm 0.5bp To 193.5 \pm 0.5bp	6 to 15
Amelogenin	Green	99.3bp \pm 0.5bp To 109.3 \pm 0.5bp	X and Y
D2S1338	Green	110.9bp \pm 0.5bp To 179.9 \pm 0.5bp	15 to 28
D21S11	Green	180.6bp \pm 0.5bp To 250.6 \pm 0.5bp	24 to 38
D16S539	Yellow	70.0bp \pm 0.5bp To 122.0 \pm 0.5bp	5 to 15
D18S51	Yellow	122.4bp \pm 0.5bp To 210.4 \pm 0.5bp	7 to 27
CSF1PO	Red	84.6bp \pm 0.5bp To 132.6 \pm 0.5bp	6 to 15
FGA	Red	136.4bp \pm 0.5bp To 296.4 \pm 0.5bp	17 to 51.2

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YFiler loci and approximate size range

YFiler locus	Color	Size Range 3130x/ GS500 Std.	Allele range in Ladder
DYS456	Blue	103.0bp \pm 0.5bp To 123.0 \pm 0.5bp	13 to 18
DYS389I	Blue	142.0bp \pm 0.5bp To 170.0 \pm 0.5bp	10 to 15
DYS390	Blue	193.0bp \pm 0.5bp To 237.0 \pm 0.5bp	18 to 27
DYS389II	Blue	254.0bp \pm 0.5bp To 294.0 \pm 0.5bp	24 to 34
DYS458	Green	137.0bp \pm 0.5bp To 161.0 \pm 0.5bp	14 to 20
DYS19	Green	175.0bp \pm 0.5bp To 211.0 \pm 0.5bp	10 to 19
DYS385a/b	Green	243.0bp \pm 0.5bp To 315.0 \pm 0.5bp	7 to 25
DYS393	Yellow	107.0bp \pm 0.5bp To 143.0 \pm 0.5bp	8 to 16
DYS391	Yellow	148.0bp \pm 0.5bp To 180.0 \pm 0.5bp	7 to 13
DYS439	Yellow	200.0bp \pm 0.5bp To 228.0 \pm 0.5bp	8 to 15
DYS635	Yellow	242.0bp \pm 0.5bp To 270.0 \pm 0.5bp	20 to 26
DYS392	Yellow	291.0bp \pm 0.5bp To 327.0 \pm 0.5bp	7 to 18
Y GATA H4	Red	122.0bp \pm 0.5bp To 142.0 \pm 0.5bp	8 to 13
DYS437	Red	182.0bp \pm 0.5bp To 202.0 \pm 0.5bp	13 to 17
DYS438	Red	223.5bp \pm 0.5bp To 248.5 \pm 0.5bp	8 to 13
DYS448	Red	276.0bp \pm 0.5bp To 324.0 \pm 0.5bp	17 to 24

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Macro Filter functions - Allele Filters

Identifiler 28 cycles	Allele Filters
Locus	Stutter Filter 3130x/ (OCME validation @ 500pg)
D8S1179	11.2%
D21S11	14.7%
D7S820	11.0%
CSF1PO	10.4%
D3S1358	10.8%
THO1	7.7%
D13S317	9.3%
D16S539	9.7%
D2S1338	10.5%
D19S433	19.1%
vWA	18.1%
TPOX	3.0%
D18S51	13.6%
Amelogenin	none
D5S818	13.3%
FGA	24.6%

For Identifiler, a general 10% filter is also applied to all loci.

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Identifiler 31 cycles	Allele Filters
Locus	Stutter Filter 3130x/ (ABI default)
D8S1179	12%
D21S11	13%
D7S820	9%
CSF1PO	9%
D3S1358	11%
THO1	6%
D13S317	10%
D16S539	13%
D2S1338	15%
D19S433	17%
vWA	11%
TPOX	6%
D18S51	16%
Amelogenin	none
D5S818	10%
FGA	11%

For Identifiler, a general 10% filter is also applied to all loci.

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MiniFiler	Allele Filters
Locus	Stutter Filter 3130x/ (ABI default)
D13S317	14 %
D7S820	11 %
Amelogenin	None
D2S1338	18 %
D21S11	16 %
D16S539	15 %
D18S51	18 %
CSF1PO	14 %
FGA	15 %

For Minifiler, a general 10% filter is also applied to all loci.

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YFiler	Allele Filters
Locus	Stutter Filter 3130x/ (OCME validation @ 500pg)
DYS456	15.77%
DYS389I	13.65%
DYS390	13.01%
DYS389II	20.77%
DYS458	14.94%
DYS19	14.28%
DYS385a/b	14.75%
DYS393	15.71%
DYS391	9.32%
DYS439	11.14%
DYS635	18.93%
DYS392	24.30%
Y GATA H4	14.36%
DYS437	9.27%
DYS438	7.66%
DYS448	7.38%

For YFiler, an 8 % general filter is also applied to all loci.