

Autosomal STR MPS Panel (KplexSeq-A25)

5x Primer Mix for Multiplex PCR

Illumina® Nextera® Adapters

NT1 Sequence 5'-TCG TCG GCA GCG TCA GAT GTG TAT AAG AGA CAG

NT2 Sequence 5'-GTC TCG TGG GCT CGG AGA TGT GTA TAA GAG ACA G

Locus		Primer Sequence (5'→3')	Conc. (uM)
Amelogenin	F	5'-NT1-CCT TTG AAG TGG TAC CAG AGC AT	2.50
	R	5'-NT2-GCA TGC CTA ATA TTT TCA GGG AAT AA	2.50
D1S1656	F	5'-NT1-CTG TGT TGC TCA AGG GTC AA	1.20
	R	5'-NT2-GAG AAA TAG AAT CAC TAG GGA ACC A	1.20
TPOX	F	5'-NT1-GCA CAG AAC AGG CAC TTA GG	1.00
	R	5'-NT2-TCC TTG TCA GCG TTT ATT TGC	1.00
D2S441	F	5'-NT1-GAA CTG TGG CTC ATC TAT GAA AA	2.25
	R	5'-NT2-AAG TGG CTG TGG TGT TAT GAT	2.25
D2S1338	F	5'-NT1-TGG AAA CAG AAA TGG CTT GG	3.25
	R	5'-NT2-AGT TAT TCA GTA AGT TAA AGG ATT GC	3.25
D3S1358	F	5'-NT1-CCC ACT GCA GTC CAA TCT G	1.65
	R	5'-NT2-ATC AAC AGA GGC TTG CAT GT	1.65
FGA	F	5'-NT1-CTG TAA CCA AAA TAA AAT TAG GCA	8.00
	R	5'-NT2-TGT CTG TAA TTG CCA GCA AAA	8.00
D5S818	F	5'-NT1-AGG GTG ATT TTC CTC TTT GGT	2.50
	R	5'-NT2-CAA CAT TTG TAT CTT TAT CTG TAT CCT	2.50
CSF1PO	F	5'-NT1-ACT GCC TTC ATA GAT AGA AGA T	6.00
	R	5'-NT2-CTG TGT CAG ACC CTG TTC TAA GT	6.00
D6S1043	F	5'-NT1-CAA GGA TGG GTG GAT CAA TAG	1.45
	R	5'-NT2-ATT GTA TGA GCC ACT TCC CA	1.45
D7S820	F	5'-NT1-AAG GGT ATG ATA GAA CAC TTG TCA T	2.50
	R	5'-NT2-CTC ATT GAC AGA ATT GCA CCA	2.50
D8S1179	F	5'-NT1-GGC CTG GCA ACT TAT ATG TAT TT	3.25
	R	5'-NT2-CCT GTA GAT TAT TTT CAC TGT GGG	3.25

Autosomal STR MPS Panel (continued)

5x Primer Mix for Multiplex PCR (continued)

Locus		Primer Sequence (5'→3')	Conc. (uM)
D10S1248	F	5'-NT1-AAT GAA TTG AAC AAA TGA GTG AG	2.50
	R	5'-NT2-GGA ACA ACT CTG GTT GTA TTG TCT	2.50
TH01	F	5'-NT1-GAT TCC CAT TGG CCT GTT C	1.00
	R	5'-NT2-CAG GTC ACA GGG AAC ACA GA	1.00
vWA	F	5'-NT1-AGC CCT AGT GGA TGA TAA GAA	2.75
	R	5'-NT2-TGA TAA ATA CAT AGG ATG GAT GG	2.75
D12S391	F	5'-NT1-AAA GAA TCA ACA GGA TCA ATG G	4.50
	R	5'-NT2-TTC CTC TAA TAA ATC CCC TCT C	4.50
D13S317	F	5'-NT1-TCT GAC CCA TCT AAC GCC TA	2.50
	R	5'-NT2-ATA GGC AGC CCA AAA AGA CA	2.50
Penta E	F	5'-NT1-GGC GAC TGA GCA AGA CTC A	8.50
	R	5'-NT2-TGG AAA GAA TTC TCT TAT TTG GG	8.50
D16S539	F	5'-NT1-ATA CAG ACA GAC AGA CAG GTG	1.10
	R	5'-NT2-AGC ATG TAT CTA TCA TCC ATC TC	1.10
D18S51	F	5'-NT1-GTT GCT ACT ATT TCT TTT CTT TTT CTC	4.50
	R	5'-NT2-CTG AGT GAC AAA TTG AGA CCT TG	4.50
D19S433	F	5'-NT1-GCA AAA AGC TAT AAT TGT ACC AC	2.50
	R	5'-NT2-CCC GAA TAA AAA TCT TCT CTC TTT	2.50
D21S11	F	5'-NT1-AAT TCC CCA AGT GAA TTG CC	4.25
	R	5'-NT2-AAT AGG AGG TAG ATA GAC TGG AT	4.25
Penta D	F	5'-NT1-TGG AAG GTC GAA GCT GAA GT	10.00
	R	5'-NT2-TGA TTC TCT TTT TTT CCC CTT C	10.00
D22S1045	F	5'-NT1-TTT CCC CGA TGA TAG TAG TCT	7.00
	R	5'-NT2-GTG AGT GAT CAC GCG AAT GT	7.00
DYS391	F	5'-NT1-TTC AAT CAT ACA CCC ATA TCT GTC	3.50
	R	5'-NT2-TGC AAG CAA TTG CCA TAG AG	3.50

Allele and Size Ranges of KplexSeq-A25 Panel

Locus	Allele Range	Size Range	2800M Genotype
Amelogenin	X, Y	79, 82	X, Y
TPOX	5 - 15	78 - 118	11, 11
D2S441	8 - 17	79 - 115	10, 14
TH01	4 - 13.3	80 - 119	6, 9.3
D16S539	5 - 15	82 - 122	9, 13
D10S1248	8 - 19	84 - 128	13, 15
CSF1PO	6 - 15	85 - 121	12, 12
D22S1045	8 - 19	89 - 122	16, 16
D6S1043	7 - 25	91 - 163	12, 20
DYS391	5 - 16	97 - 141	10
D2S1338	11 - 28	98 - 166	22, 25
D18S51	7 - 27	100 - 180	16, 18
D3S1358	9 - 20	101 - 145	17, 18
Penta E	5 - 24	101 - 196	7, 14
D8S1179	7 - 19	102 - 150	14, 15
D13S317	5 - 16	106 - 150	9, 11
D5S818	7 - 18	109 - 153	12, 12
D12S391	14 - 27	110 - 162	18, 23
vWA	11 - 24	121 - 173	16, 19
D1S1656	9 - 20.3	123 - 170	12, 13
D19S433	6 - 18.2	126 - 176	13, 14
FGA	14 - 33.2	129 - 207	20, 23
Penta D	2.2 - 17	132 - 205	12, 13
D7S820	6 - 15	153 - 189	8, 11
D21S11	24 - 38	161 - 217	29, 31.2