Details about 10 core loci used in GenePrint® 10 Kit (Promega)

1. **CSF1P0**
   a. 5q33.1
   b. Chromosome 5 – around 149 Mb
   c. Tetranucleotide repeat
   d. Simple STR
   e. Repeat motif:
      i. –TAGA
   f. 6th intron of proto-oncogene c-fms

2. **TH01**
   a. 11p15.5
   b. Chromosome 11 – around 2 Mb
   c. Tetranucleotide repeat
   d. Simple STR
   e. Repeat motif:
      i. –TCAT
   f. 1st intron of tyrosine hydrolyase gene

3. **TPOX**
   a. 2p25.3
   b. Chromosome 2 – around 1 Mb
   c. Tetranucleotide repeat
   d. Simple STR
   e. Repeat motif:
      i. –GAAT
   f. 10th intron of thyroid peroxidase gene

4. **vWA**
   a. 12p13.31
   b. Chromosome 12 – around 20 Mb
   c. Tetranucleotide repeat
   d. Compound STR
   e. Repeat motif:
      i. –[TCTG][TCTA]
   f. 40th intron of von Willebrand Factor gene

5. **D5S818**
   a. 5q23.2
   b. Chromosome 5 – around 123 Mb
   c. Tetranucleotide repeat
   d. Simple STR
   e. Repeat motif:
      i. –AGAT

f. Not related to any gene

6. D7S820

a. 7q21.11
b. Chromosome 7 – around 83 Mb
c. Tetranucleotide repeat
d. Simple STR
e. Repeat motif:
    i. –GATA
f. Not related to any gene

7. D13S317

a. 13q31.1
b. Chromosome 13 – around 80 Mb
c. Tetranucleotide repeat
d. Simple STR
e. Repeat motif:
    i. –TATC
f. Not related to any gene

8. D16S539

a. 16q24.1
b. Chromosome 16 – around 86 Mb
c. Tetranucleotide repeat
d. Simple STR
e. Repeat motif:
    i. –GATA
f. Not related to any gene

9. D21S11

a. 21q21.1
b. Chromosome 21 – around 19 Mb
c. Tetranucleotide repeat
d. Complex STR
e. Repeat motif:
    i. –[TCTA][TCTG] surrounded by a constant section of specific sequence
f. Not related to any gene

10. Amelogenin

a. Amelogenin gene encodes for protein in tooth enamel
b. Gene on X chromosome, but also on the part of the Y chromosome that is homologous to X chromosome (Pseudoautosomal region [PAR])
c. AMEL loci
d. Primers are homologous to one region on both X and Y chromosomes
e. X chromosome has 6 bp deletion and Y chromosome doesn't

For more information on agreed upon strand and repeat motif information as well as a reference for all STRs, including common alleles and allele frequencies, please visit:

http://www.cstl.nist.gov/biotech/strbase