

[List of autosomal STRs](#)

CD4	Intronic STR of the surface antigen CD4(GDB-ID: M86525)
CSF1PO	Intronic STR of the proto-oncogene c-fms of the receptor for colony stimulating factor 1 (GDB-ID: U63963) ^{a,b}
D2S1338	STR in chromosome 2 (GDB-ID: G08202) ^b
D3S1358	STR in chromosome 3 (GDB-ID: AC099539) ^{a,b}
D5S818	STR in chromosome 5 (GDB-ID: G08446) ^{a,b}
D7S820	STR in chromosome 7 (GDB-ID: G08616) ^{a,b}
D8S1179	STR in chromosome 8 (GDB-ID: G08710) ^{a,b}
D13S317	STR in chromosome 13 (GDB-ID: G09017) ^{a,b}
D16S539	STR in chromosome 16 (GDB-ID: G07925) ^{a,b}
D18S51	STR in chromosome 18 (GDB-ID: AP001534) ^{a,b}
D19S433	STR in chromosome 19 (GDB-ID: G08036) ^b
D21S11	STR in chromosome 21 (GDB-ID: AP000433) ^{a,b}
FES	STR of intron V of the proto-oncogene homologous to feline sarcoma (GDB-ID: X06292)
FGA	Intronic STR of alpha fibrinogen (GDB-ID: M64982) ^{a,b}
F13	STR of intron 1 of coagulation factor XIII subunit A (GDB-ID: M21986)
MBPB	Intronic STR of the basic mielin protein
Penta D	STR in chromosome 21 (GDB-ID: AC027004) ^a
Penta E	STR in chromosome 15 (GDB-ID: AP001752) ^a
TPO	STR of intron 10 of the thyroide peroxidase locus (GDB-ID: M68651) ^{a,b}
TH01	STR of intron 1 of tyrosine hydroxylase (GDB-ID: D00269) ^{a,b}
VWA	STR of intron 40 of Von Willebrand coagulation factor (GDB-ID: M25858) ^{a,b}

- Extracted genomic DNA is amplified by PCR (Polymerase Chain Reaction) and analysed through electrophoresis using automatic systems (ABI PRISM 3130) according to fragment sizes. Loci marked with ^a and ^b are included in *Powerplex 16* (Promega Corporation) and *Identifiler* (AB Applied Biosystems) kits, respectively.

[List of X-STRs](#)

DXS8378	STR in chromosome X (GDB-ID: G08098) ^c
DXS9898	STR in chromosome X (GDB-ID: 1298173)
DXS7133	STR in chromosome X (GDB-ID: 685692)
GATA31E08	STR in chromosome X (GDB-ID: 684783)
GATA172D05	STR in chromosome X (GDB-ID: 9838664)
DXS7423	STR in chromosome X (GDB-ID: 574202) ^c
DXS6809	STR in chromosome X (GDB-ID: 685491)
DXS7132	STR in chromosome X (GDB-ID: 685605) ^c
DXS9902	STR in chromosome X (GDB-ID: 1321153)
DXS6789	STR in chromosome X (GDB-ID: 684786)
DXS8377	STR in chromosome X (GDB-ID: 683233)
HPRTB	STR in chromosome X (GDB-ID: 185506) ^c
DXS101	STR in chromosome X (GDB-ID: 195168)
DXS10101	STR in chromosome X (AC004383) ^c
DXS10134	STR in chromosome X (AL034384) ^c
DXS10135	STR in chromosome X (AC003684) ^c
DXS10074	STR in chromosome X (AL356358) ^c

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[List of autosomal Indels](#)

rs34541393	Indel in chromosome 20, position 30165065
rs16624	Indel in chromosome 2, position 234681130
rs2307689	Indel in chromosome 19, position 48896179
rs35769550	Indel in chromosome 8, position 76681235
rs2307700	Indel in chromosome 22, position 25120901
rs3047269	Indel in chromosome 1, position 161077452
rs33972805	Indel in chromosome 11, position 125794082
rs33917182	Indel in chromosome 20, position 11643625
rs16402	Indel in chromosome 9, position 38396788
rs1610871	Indel in chromosome 5, position 171020571
rs2067238	Indel in chromosome 12, position 113772931
rs2067294	Indel in chromosome 9, position 70504241
rs2307710	Indel in chromosome 6, position 47929222
rs2308242	Indel in chromosome 3, position 8591709
rs2307580	Indel in chromosome 9, position 104626014
rs1160956	Indel in chromosome 5, position 65414216
rs34511541	Indel in chromosome 18, position 34677041
rs2307978	Indel in chromosome 7, position 83121849
rs3051300	Indel in chromosome 17, position 10076666
rs10629077	Indel in chromosome 21, position 30294208
rs10688868	Indel in chromosome 11, position 258180
rs2067208	Indel in chromosome 16, position 83139792
rs2307579	Indel in chromosome 1, position 245878706
rs2308020	Indel in chromosome 15, position 51268809
rs3080855	Indel in chromosome 18, position 21507205
rs1610919	Indel in chromosome 12, position 14801262
rs2307839	Indel in chromosome 6, position 117200251
rs2308137	Indel in chromosome 6, position 149655890
rs36040336	Indel in chromosome 19, position 1353662
rs2308026	Indel in chromosome 4, position 119404854
rs2307526	Indel in chromosome 5, position 5178112
rs34811743	Indel in chromosome 11, position 30134266
rs5895447	Indel in chromosome 8, position 138489776
rs2308171	Indel in chromosome 13, position 43778155
rs35605984	Indel in chromosome 21, position 14556736

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List of Y-STRs

DYS19	STR in chromosome Y (GDB-ID: G00-121-409) ^d
DYS385	STR in chromosome Y (GDB-ID: G00-316-257) ^d
DYS389I and II	STR in chromosome Y (GDB-ID: G00-366-108) ^d
DYS390	STR in chromosome Y (GDB-ID: G00-366-115) ^d
DYS391	STR in chromosome Y (GDB-ID: G00-366-118) ^d
DYS392	STR in chromosome Y (GDB-ID: G00-456-509) ^d
DYS393	STR in chromosome Y (GDB-ID: G00-456-649) ^d
DYS437	STR in chromosome Y (GDB-ID: AC002992) ^d
DYS438	STR in chromosome Y (GDB-ID: AC002531) ^d
DYS439	STR in chromosome Y (GDB-ID: AC002992) ^d
DYS448	STR in chromosome Y (GDB-ID: AC025227) ^d
DYS456	STR in chromosome Y (GDB-ID: AC010106) ^d
DYS458	STR in chromosome Y (GDB-ID: AC010902) ^d
DYS460	STR in chromosome Y (GDB-ID: AC009235)
DYS461	STR in chromosome Y (GDB-ID: AC009235)
DYS635	STR in chromosome Y (GDB-ID: G42673) ^d
GATA A10	STR in chromosome Y (GDB-ID: AC011751)
GATA H4.1	STR in chromosome Y (GDB-ID: AC011751) ^d

- Extracted genomic DNA is amplified by PCR (Polymerase Chain Reaction) and analysed through electrophoresis using automatic systems (ABI PRISM 3130) according to fragment sizes. Loci marked with ^d are included in *Yfiler* kit (AB Applied Biosystems).

Mitochondrial DNA Sequences

	Edited Sequence
Control Region	16024-576

- Extracted genomic DNA is amplified by PCR (Polymerase Chain Reaction) and analysed through electrophoresis using automatic systems (ABI PRISM 3130) by cycle sequencing with labeled terminators (*BigDye Terminator v3.1 Cycle Sequencing kit*, AB Applied Biosystems).

List of canine autosomal STRs

C2	FH3210, STR in chromosome 2 of <i>Canis familiaris</i>
C8	FH3241, STR in chromosome 8 of <i>Canis familiaris</i>
C11	FH2004, STR in chromosome 11 of <i>Canis familiaris</i>
C14	FH2658, STR in chromosome 14 of <i>Canis familiaris</i>
C15	FH4012, STR in chromosome 15 of <i>Canis familiaris</i>
C16	REN214L11, STR in chromosome 16 of <i>Canis familiaris</i>
C24	FH2010, STR in chromosome 24 of <i>Canis familiaris</i>
C33	FH2361, STR in chromosome 33 of <i>Canis familiaris</i>
C38	STR in chromosome 38 of <i>Canis familiaris</i> , region 9841599-9841756

- Extracted genomic DNA is amplified by multiplex PCR (Polymerase Chain Reaction) and analysed through electrophoresis using automatic systems (ABI PRISM 3130) according to fragment sizes.