Appendices

Appendix 1: A genomics timeline (reproduced from Lander *et al*., 2000).

1800s

1865	Gregor Mendel reports the results of his pea plant experiments, from which he discerned several fundamental laws of heredity. His results, which appeared in an obscure journal article in 1866, were ignored for 34 years.
1882	Walther Flemming publishes his observations of tiny threads--later known as chromosomes--inside salamander larvae cells that appear to be dividing.

1900s

1900	Hugo de Vries in the Netherlands, Erich Tschermak von Seysenegg in Austria, and Karl Correns in Germany simultaneously rediscover and verify Mendel's principles of heredity.
1902	Walter Sutton points out connection between chromosomes and Mendel's "factors," thereby expanding the science of genetics from the organismal level to the subcellular level.
1910	Thomas Hunt Morgan and co-workers in the "fly lab" show that some genetically determined traits are sex linked. They also confirm that some trait-determining genes are located on specific chromosomes.
1927	Working with fruit flies, Hermann Muller determines that x-rays can cause genetic mutations.
1928	Fred Griffith discovers the phenomenon of transformation, in which some unknown "principle" transforms a harmless strain of bacteria into a virulent one.
1944	Oswald Avery, Colin MacLeod, and Maclyn McCarty prove that DNA, not protein, embodies the heredity material in most living organisms.
Late 1940s	Erwin Chargaff discovers one-to-one correspondence between adenine and thymine and between cytosine and guanine--a key piece of information for determining the structure of DNA.
1952	Rosalind Franklin obtains x-ray diffraction data of DNA, which become central to the elucidation of DNA's molecular structure. Martha Chase and Alfred Hershey report experiments with bacteriophages that help prove DNA is the molecule of heredity.
1953	James Watson and Francis Crick announce their discovery of the double-helix structure of DNA. They write in a 958-word Nature article: "It has not escaped our notice that the specific pairings we have postulated immediately suggest a possible copying mechanism for the genetic material."
Mid-1960s	Marshall Nirenberg, H. Gobind Khorana, and others crack the triplet code that maps messenger RNA codons to specific amino acids.
1969	A team at Harvard Medical School led by Jonathan Beckwith isolates the first gene, specifically, a bacterial gene whose protein product is involved in sugar metabolism.
1970	A team at the University of Wisconsin, led by H. Gobind Khorana, synthesizes a gene from scratch, beginning what might be called chemical genetics.
1972	Using restriction enzymes from Herbert Boyer's research group, Paul Berg and colleagues produce the first recombinant DNA molecules.

1973	The era of genetic engineering begins when Stanley Cohen, Herbert Boyer, and co-workers insert a gene from an African clawed toad into bacterial DNA.
1976	Genentech, the first genetic engineering company, is founded in South San Francisco.
1983	James Gusella and co-workers locate a genetic marker for Huntington's disease on chromosome 4. This leads to scientists having the ability to screen people for a disease without being able to cure it. Meanwhile, Kary Mullis conceives of the polymerase chain reaction, a chemical DNA replication process that will greatly quicken the pace of genetic science and technology development.
1984	Alec Jeffreys develops "genetic fingerprinting," a molecular biological analog of traditional fingerprinting for identifying individuals by analyzing polymorphic (variable) sequences in their DNA.
1986	The Human Genome Initiative, later called the Human Genome Project, is announced. The goal is to sequence the entire human genome and provide a complete catalog of every human gene.
1987	A large, collaborative effort yields the first comprehensive human genetic map with 400 signposts.
1988	The National Center for Human Genome Research is created, with the goal of mapping and sequencing all human DNA by 2005.
1990	The Human Genome Project is formally launched, with a completion date set for 2005. W. French Anderson performs the first gene therapy procedure on a 4-year-old girl with an immune disorder known as ADA deficiency. (It didn't work.) Mary-Claire King finds evidence that a gene on chromosome 17 causes an inherited form of breast cancer and increases the risk of ovarian cancer.
1992	An international collaboration produces a rough map of genetic polymorphism: the variable genetic regions along all 23 pairs of human chromosomes that govern person-to-person biological variation.
1995	The Institute for Genomic Research reports the first complete DNA sequence of the genome of a free-living organism--the bacterium Haemophilus influenzae.
1996	The first complete sequence of the genome of a eukaryote (the yeast Saccharomyces cerevisiae) is reported by an international effort involving some 600 scientists in Europe, North America, and Japan.
1998	The first genome of a multicellular organism--the 97-megabase DNA sequence of the roundworm Caenorhabditis elegans--is published by the C. elegans Sequencing Consortium.
	2000
2000	Completion of the first draft of the entire human genome sequence.

Appendix 2: List of primers designed and used for gene identification. Additional information for each STS can be obtained at http://webace.sanger.ac.uk/cgi-bin/webace?db=acedb20&class=STS.

STS	Sense primer	Antisense primer	Parent sequence
stSG64569	ATGTCCTTCATCCTCAACGC	TGGATTTAGGGGCTGAGTTG	dJ453C12
stSG64570	GCGCCTCTCTCAACTTCATC	CAAGAGCTTCTTCCAGGGG	dJ453C12
stSG64571	CCGTGGAGTACATGGAACG	TCTGAGGTTCTCCAGCAGGT	dJ453C12
stSG64572	TCTTGATGTCTCTCAGCTGCA	TGGTTCACTTTTCCAGGGTC	dJ48A11
stSG64573	CTGGGTCTGGCCAATGAC	CACAGCATAGCGCAGAAAGT	dJ453C12
stSG64574	TACGGATGATCTGCAATGGA	ATATCCTCCGGCTCAAAGGT	dJ453C12
stSG64575	GGAGCGGCAAAAATTCTTC	CAGCTCCTCCAAATGGTTGT	dJ453C12
stSG64576	CAGTCTGAAGAAACCCAGGTG	GTTCAAGTCAGACCCATGGA	dJ179M20
stSG64577	CATCTCAGATGCAGACAAGAGG	TCTCCTTGGGCAGAGTGC	dJ453C12
stSG66868	AATGAGCCTCCCCTCCAG	AGAATGGATGTCCGAGGAGT	dJ1119D9
stSG66869	TGGGCTGCTGGTTCTACAG	GGGGTATCTCCTTGAGCTCC	dJ453C12
stSG66870	CTTTCCTCTGTCCCATCTGC	GGGTCCCCAAGGTCAATAAG	dJ453C12
stSG66871	TCTTCTCATACCCTGGCACC	CTGTGGTTGTGACCAGTTGG	dJ715N11
stSG66873	GGACAACATGGTGAAATCCC	AGAGGCTGGTGCATCTGTTT	dJ715N11
stSG66874	TGTCTCATGGCAGAGTTTGC	GGTCAATGCGATATCGGC	dJ1119D9
stSG66875	ATCTTCACCAGGTTGATGTGG	GTGAAGCTGCTCCTCTCCC	dJ28F12
stSG66876	AACAGCAACAACGACCGAG	CGTGTGGCTATCCCCAAG	dJ816K17
stSG66877	AACAGCTTCAACTGGGCG	GGCCTTTTGTTTCAGGAACA	dJ28H20
stSG71391	CTGAAACTCATTTGGCTGCA	CAACAGATTCTAGGGCACTGC	dJ931K24
stSG71392	GGGAAGGGCTAAGATCTTGG	ATGTTTGTCTATGGTGGCTGC	dJ461P17
stSG71394	TCTATGAGAAGTTCTCTCCCGC	TTCTTGATGAAGATGTTGCCC	dJ148E22
stSG71395	GCTGGGTACCTTCCACAGC	AGCCCACTGTCGTGCACT	dJ453C12
stSG71396	TGGAGGCCTCAGTAGGCTTA	AGGCCTCACGTGCTTCAC	dJ931K24
stSG71396	TGGAGGCCTCAGTAGGCTTA	TCTCCAAGACCTGGCTCAGT	dJ931K24
stSG71396	TTGTGAGTCTCATTGATGGTCC	AGGCCTCACGTGCTTCAC	dJ931K24
stSG71396	TTGTGAGTCTCATTGATGGTCC	TCTCCAAGACCTGGCTCAGT	dJ931K24
stSG71398	CTCTGGCTCCTGGAACTTTG	TCAGCATAGGTCTCGGTGC	dJ1183I21
stSG71399	TGATGTACATGCTCCTGTAATGC	CTGCCATCTTCCTAGAATCCC	dJ738P15
stSG71400	TTCACAGTGACTCTTGGAATTCC	TACCACCAAGACCTGGAAGG	dJ971N18
stSG71402	ATGCGGAGGAGGAAAAAGAT	TTTACGCTGCCTCAAGGAGT	dJ971N18
stSG71403	CAGGAACCCACGTTGATTTT	TTGCATAGTCATTGTCCCCA	dJ569M23
stSG71404	GGCTGGGGAACTTTCTTTTC	TCAACACAGGAATGAGGCAG	dJ569M23
stSG71405	GAGAACCAGTGGGGAGACTG	TGACAAATGTCTGCTGCCTC	dJ569M23
stSG71406	GATGGCATCTTGCTCTGTCA	CCAGCTACTCCTACTGGGGA	dJ569M23
stSG71407	CTTTGCTTCTTCCTCCTCCC	GAGGGCCTAGCCTCTCTTGT	dJ569M23
stSG71408	CTCCCCCGGCTAATTTGTAT	CACATATTGGCATGCTGACC	dJ209B9
stSG71409	TGGATGCCATTGCCTTTATT	AAATGTATGGACCCCAGACG	dJ461P17
stSG71414	TGTCTCATGGCAGAGTTTGC	GGTCAATGCGATATCGGC	dJ1119D9
stSG74158	GAGATGGAGTCTCTGTCGCC	TTAGCTGGGCATGGTGGT	dJ994L9
stSG74159	ATCCTCCCCAAGGAGTATGG	GGAGTCGTCACACTGTGCAT	dJ179M20
stSG74160	AATTTCCCATTTATTCCCCG	TTCTCCCCACTCCAGAAAAA	dJ738P15
stSG74161	CGTTTGGAAGCTAAGAAGCC	CACGTAACCTCCAAAGCCAT	dJ931K24
stSG74162	ATCCTCATTACCCAGGTCCC	GCATCTGGGAGCTTCTTGTC	dJ28H20

STS	Sense primer	Antisense primer	Parent sequence
stSG74163	ATCCTGCTCTCCTATGCCCT	GAAGAGGAGGCTGAGGGATT	dJ28H20
stSG74164	TTTCCCATGGGGTCGTAGTA	GATGACAATGGTGTGCTTGC	dJ816K17
stSG74165	CAAAGGCACAATGATCTCCA	TCTCTCGTGATCTGTGGACG	dJ1100H13
stSG76865	ACCAGAGGACACACTCAGGG	TGGCATTCATAAGGCCTCTC	dJ694B14
stSG76866	GAAGCCTTTTCTGTGCAAGG	TTAAACCTTCGCCCACACTC	dJ694B14
stSG76867	AAAGGTGGTGCAGCCAATAG	GTCTGTCTGTCCCCATTCGT	dJ694B14
stSG76868	GTCCATATGAACGGGAAGGA	TCCTGCTTCATCTGCTCAAA	dJ148E22
stSG76869	ATCCCTGGACTCCATTGTGA	AACCTTCTGGATGGACTGGA	dJ343K2
stSG76870	CAACTCAAGCACAAAAGCCA	CTTGGGTAGCGTCAGAGGAG	dJ1183I21
stSG76871	TGGGATGGGTACTGAGGAAG	AGACAATTGGGCAGGTTTTG	dJ28H20
stSG76872	GATATCCAACCTGACGTGGC	TGAGGAACATTTGCCAAAAA	dJ715N11
stSG76873	TGCTTTTGGTGTTACATCTAAGAAAT	GCCTAGGCAACGTGGATATACT	dJ715N11
stSG76874	AAGTGACTCCTACAGTCCCCC	CCAACCTCCTGGAAAAGTGA	dJ1100H13
stSG76875	AGCCTGTCAGAGGAGAGCAG	CCAAAGAACTGAAAGCCTCG	dJ1054C24
stSG76876	GCGAGGAGAGATCATCGACA	GATCTCGGCCATGATGTAGC	dJ633020
stSG76877	AGAAGATCTCCCGGAGCAGT	AGAGGGGAAAGATGGTTCGT	dJ633020
stSG76878	TTCACCTACACCCCGGAATA	ACTCCTGATGGATGCTCTCC	dJ453C12
stSG76879	AAACAGAAAACTAACATTGGAACCT	CAAAATACCAATGTCTCTAGGAAGG	dJ1178H5
stSG76880	TACTTCAGTCACCACCAGCG	AACGCAGGATCTCCTTCAGA	dJ1178H5
stSG76881	GAGGTGAACCAGAAGCCAAG	TTGCTTGGTGATCATTTTGC	dJ1178H5
stSG76882	TCAGGAGTAGCAGCCAAGGT	GATGCAGCTTCTCTGGCAAT	dJ1178H5
stSG76883	TCAGGAGTGATACTTCACAGATCC	TCTAGCCGGTCCACTTTG	dJ850H21
stSG76884	GATCCCCAATGTTGACGTTT	ATCCTAAGCAGTGGATTGGC	dJ850H21
stSG76885	CCCCCGAGTCATCTTCATTA	GAGGATCTGCACATCACCCT	dJ453C12
stSG76886	CACCAAAGCTGTGTTCCAGA	GTGAGAGGAAAGCCTGATGC	dJ816K17
stSG76887	GGACATCCTGAACATCTGCC	CTGGTGACGTAGATGGGGTT	dJ816K17
stSG76888	CTTCGTGTTTGCGGAGGT	GCATCTCCCAATCTTCTTCG	dJ816K17
stSG76889	GCAGCTTCCTGTGTAAAGGC	GTATCCCTGCTCAGCCTCTG	dJ730D4
stSG76890	GGCAAGACGTTTGGTTTCAT	GGACTGCCATTTTCTGGATT	dJ1119D9
stSG76891	AAGGTGCTAGAGCCTCCCAT	GGGTATAGAGGATGGTGGCA	dJ734P14
stSG76892	GGTCACTTCTGACAGGGGAA	AACCAATACGAACTCGACCG	dJ963K23
stSG76893	AACTGCTACTGGAAAGGAGAAA	TCTGGAATGAGGAACAAGCC	dJ963K23
stSG76894	CCAAACAGGGAAGGAACGTA	TGTACGATCAAGCTGGCATT	dJ576H24
stSG76895	GTCTGCCTGGAAATTCTGGA	CATCCTTTTTACCCCAGCAA	dJ28H20
stSG76896	AGTCCTTGGTCTGCTGGTGT	TTGACAAGCAGGTTTGTTGG	dJ28H20
stSG76897	TCAACCCTCATCAGACACCA	GGTTTCTCACCGGAGTGTGT	dJ734P14
stSG76898	GGCCTGACCTTTGGTTATGA	TGCCATAGCAGTCAATGAGG	dJ28H20
stSG76899	CACCTATGAGCGAATTGATGGGCG	CACGTGGTCTCGCCCTCCGGACCCC	dJ620E11
stSG76900	TGCCATCCTCGAGAAGAACT	CCTGCAATCAGCTTAGGGAG	dJ620E11
stSG76901	AATGGTGTACAGAGACGCCC	TATGTTCCAGGGCCATAAGC	dJ620E11
stSG76902	ACTAACTGGGAGCGGGAGTT	GGGCGTCTCTGTACACCATT	dJ620E11
stSG76905	AGTGCAGCTGTTCCTGGTCT	TTCGTCTGTTTTGTTCGCAG	dJ28H20
stSG76906	AGATGTGGTTGTAGGGCAGC	GACGGCGTCTGTGACAAGTA	dJ1065O2
stSG76907	GTGAATATCCCCAACATGGC	TGGAGGTGAGAGATGTGCAG	dJ576H24
stSG76909	CAAATTGACGCAAATAGCGA	CCAGACCAAAGGATGTGGAT	dJ569M23
stSG76910	GGCCTGACCTTTGGTTATGA	GTCCTCATTGGTCCTTGGAA	dJ28H20

STS	Sense primer	Antisense primer	Parent sequence
stSG76911	AAATCGCCCTCAGAATATGG	AAGTTACACGGGAGGGAGGT	dJ1183I21
stSG76912	CATGGCACTGACTAGCCGAC	GTCCACTCGCCCTTGTAGAG	dJ1183I21
stSG76913	GCTGGAGCTTTGCCTCTCTA	GATCGAAGTGTCTGAGCGTG	dJ453C12
stSG76914	GGAGCTCAAGGAGATACCCC	CATTTCCAGGGTTCCTCTCA	dJ453C12
stSG76915	CTGCAGGAGCTGACATGGAC	GACTCGAGATGCAGATGGGA	dJ453C12
stSG76916	AGACTGACCACGCTGGCTAT	GGTACACAATCCCACCATCC	dJ453C12
stSG76917	CTAGCAGCAGGTGATGGTGA	TTGGCTATGAATACCTGGGC	dJ257E24
stSG76918	CAGTCCCCCGTACAGGAAG	GTGTGACGTGGTGAATTTCG	dJ257E24
stSG76919	TGGACTCCAACAAGCATCAG	ATCGTCCTCTTCCCCTTCAT	dJ257E24
stSG76922	TTTGACTGCTGTTGTGACCC	GGGTGAAGAATGGTCAAGGA	dJ620E11
stSG76923	GGGATGGACCTGGTAGGACT	CCACTTTTCGTTGTGCTTGA	dJ620E11
stSG76924	TCATTTCCCGTTTGGACAAG	TTCCATGTGGGTAGACGACA	dJ620E11
stSG76926	AGGTTGTGGGAAGTGAGGC	TCTTCACGTTTCAGCACCAC	dJ967N21
stSG76927	AAGAGGGACAGTGGTTCGTG	TCCATCTGGAAGAGGAAAGC	dJ967N21
stSG76928	AGGCCCAAAAGTTTACCAGC	CGTGCACGCATATCTTCACT	dJ967N21
stSG76929	GTGTCCCAGGCTGCTGAG	AACAGTGGTTCCGCTGGC	dJ967N21
stSG76930	AGCTTTCACCACAGCTGCAT	GCCCTGTTCCCATTGATGTA	dJ967N21
stSG76931	TCTCTGTGCTCTCGATCTGC	GGAATGTCTGAAGCCGAAGA	dJ963K23
stSG76932	CCAGGGTTATGTCCCAAAGA	TTGAAAGGGATCCATGCACT	dJ461P17
stSG76933	CTAGCAGCAGGTGATGGTGA	TTGGCTATGAATACCTGGGC	dJ257E24
stSG76934	TGGACTCCAACAAGCATCAG	ATCGTCCTCTTCCCCTTCAT	dJ257E24
stSG76935	GGACACCCTCTCTAGGGTCC	GCTTGTGCATTCAGACCAGA	dJ718J7
stSG76936	CAGGGTGTACCACGTAGGC	CCCACCATCCTTGTCATCTT	dJ1049G16
stSG76938	AAGAGGTCACCAAGGGCAG	CGGGTAGAGGAGCAAAACAA	dJ453C12
stSG76939	GTTGCCATGGAGACAGGC	AGCCGTAATACACGGTCTGC	dJ453C12
stSG76940	AACATCATGATAGGGCCTGG	TTTCATTCAGTTTCACCCCC	dJ620E11
stSG76943	CTCACCCCAGATGAAGGTGT	AAAGCATAGGCCACCATGAC	X59747
stSG76944	TGGACTTCGAATCCCAGC	CTCGTCCACGTCGGTCAC	dJ998H6
stSG76945	AGCTGCTGACTGCAAGGTCT	AGTGGGTGAGAAACAGGAGG	dJ816K17
stSG76946	AGCTGCTGACTGCAAGG	AGTGGGTGAGAAACAG	dJ816K17
stSG76946	AGCTGCTGACTGCAAGG	GGGTCTCCTGATTCCCTCTC	dJ816K17
stSG76946	GGAAAAACCTCTGCATTGGA	AGTGGGTGAGAAACAG	dJ816K17
stSG76946	GGAAAAACCTCTGCATTGGA	GGGTCTCCTGATTCCCTCTC	dJ816K17
stSG76947	CCTTGTCCCTCCTGAGAAGA	CTGCTGCTGATCCCTGATG	dJ816K17
stSG76948	GGGGGATCCTTGAGGAAGTA	CTAAGCACAGCCTCTCTGGG	dJ816K17
stSG76949	TTAGATAGAGGAAGCTGGGGG	ATGCGGTTCTTGAGGTAGGA	dJ816K17
stSG76950	TATGGAAGATGAGGCCTTGC	CACAGACAAAGATGGGGTGG	dJ816K17
stSG76951	GGTAAGGAAAAGCAGGGGTC	ACTCTAGGCAGCTTCACCCA	dJ816K17
stSG76952	GTAATAAAGGCCGCCATGTG	TTTCCTTACCCATGCTGCTC	dJ816K17
stSG76953	TGAAAAAGGAGGTGGTTTGG	ATTAAAGGAGCAAGGGGGTG	dJ734P14
stSG76954	AGTTAAAGGCACAAACCCCC	TTCCCTTCCTTCTTCCCAGT	dJ734P14
stSG76955	ACAAGGAAGAGAGCCCCATT	TGGGGGTGGACATGACTAAT	dJ734P14
stSG76956	GAGACAAAGAATGGGCAGGA	ACAGTCTGCCTTTCTCCCCT	dJ734P14
stSG76957	GCTGTTAGTCACTGGCCCTC	TCCTGCCCATTCTTTGTCTC	dJ734P14
stSG76958	ATGTAGATGGCCACTCGGTC	AGGGGAGACCACTCAGATCA	dJ18C9
stSG76959	GGCCATATCAATGACTCCCA	AACCATGGCCACAATGAAGT	dJ18C9

STS	Sense primer	Antisense primer	Parent sequence
stSG76960	TTCTGCCCCAAGATCAAATC	TTCTTCAGCTTTGCCACCTT	dJ18C9
stSG76961	CGACCTCACAGACGACACAG	ATCTCCACTGTCTGCCTCCA	dJ1085F17
stSG76962	CTGACTCTTGCAGGGGTAGC	GGTAGACCCAGGAAGGGAAA	dJ1085F17
stSG76963	AGCTCCTGTTGGCCATTCTA	CTCGGAAGATCCTGAAGTGG	dJ322G13
stSG76964	CGAATTAGCCTCTGGACTCG	CTGGGTCACTTCCAAAGGTG	dJ322G13
stSG76965	TGTTGCTTCGCATCAAAAAG	GCCATTAAATAGGCATCCCA	dJ322G13
stSG76966	TGCTGGTACAGTGAATTCCG	TGTGTGAAACATGTGGCAAG	dJ322G13
stSG76967	GAGTGGCCTTTCATCAAACC	AGGCGTTCTGCTTTCTGTGT	dJ322G13
stSG76968	GCCATGTGAAACCGTCAGTA	ATGACGTTCCCCAGAGTCAC	dJ777L9
stSG76969	ACCAATGTGGCAGAAACCTC	TAGCTGATGCCTGGGAGACT	dJ616B8
stSG76970	CGTCTTTCAGCTGGACATCA	GCTAAGCAGAACCTTGCCAC	dJ1068E13
stSG76971	CCTCAGCTGGAGAAGGACAC	GGTGGTTCTGTACGTGGCTT	dJ717M23
stSG76972	TCCTGGAAACCACATCCTTC	ATGTGCCAGGAACTTCAACC	dJ1112F19
stSG76973	TCCGGTCCTGGAAGTAAATG	TGTGGAAGAGCCACTACCCT	dJ1103G7
stSG76974	ATGTGATACCTTTGAGGGCG	ACGCTACAGTTCTCCGCAGT	dJ1103G7
stSG76975	TCTTCCCCTCCTCTTCCAAT	GACCAGCATCTCAACTGCAA	dJ1103G7
stSG76976	ACATCAAGAGGCCGATGAAC	GGTGGGCTCAGTAGGTGAAA	dJ1103G7
stSG76977	GTTCCTGGTGTTGGATCAGC	CTATCATGGCCCAGAAGAGG	dJ1103G7
stSG76978	GAGATACTCAGCTCACGGGC	AGTCCTGGAAGGGGTAGTGG	dJ1103G7
stSG76979	GAAAGAAAAGGTCCCAAGGC	CTCCAATTCTGTCCAAGGGA	dJ1068E13
stSG76980	CTGGGGCATGTTCTTCTCAT	GGAGGCCTGTGCTTATTTGA	dJ1068E13
stSG76981	TTAGATAGAGGAAGCTGGGGG	ATGCGGTTCTTGAGGTAGGA	dJ816K17
stSG76982	GGTCCCCCAAACTCTCATTT	TCTGAACCTGGCACAGTGAG	dJ453C12
stSG76983	TCCAGGGTATCAAGGTCCAC	GAGCTCCTCTTCCCACCTGT	dJ620E11
stSG76984	TGAAGATGGGTTGCAGCATA	GGACAGGATTTGACCACGAT	dJ816K17
stSG76985	CTTCTGGCAAGGACCTGATG	CCTCGCCCACTTCATTAGAA	dJ816K17
stSG76986	TCCTTGAATGAACAAGGGCT	AACTTACACCCTTCCCCCAC	dJ816K17
stSG76987	TTTTCTAGCTTAGGCCAGGG	CTCCACAGTCTGACCAGTGC	dJ816K17
stSG76988	AGATGTGGGACTTCCCATTG	TCCGAGGATTCTAGTCGCTG	dJ816K17
stSG76989	GTGTGCGTGCCTAGCTCATA	GTTCCAGAGGCCACAGAGTC	dJ816K17
stSG76990	TGGAGATGGTACCTTGGCAT	ATCTCCCCACCTTGTCCTCT	dJ816K17
stSG76991	GTCCCAGAAGGATGGTGAGA	AGGTACCTTGGGTGTGGTGT	dJ816K17
stSG76992	GGGCTTTGGAGTTACTTCCC	GGGCAAAGATGTGCTGTCTT	dJ816K17
stSG76993	CCCACAATAGAACCTCTCGC	ACTGGGTAGGTTGTGGCCTT	dJ816K17
stSG76994	GATCTCCTCCAACTGCGG	CCACCACACAGGCTCTGAC	dJ816K17
stSG76995	GTGGCTCACAGGGACAGTG	GGCATCTGTTCTGAGGAAGG	dJ816K17
stSG76996	AGCTCTGTCTGTCCCACCC	CACCCCCTTCACTCAGTCAC	dJ816K17
stSG76997	GCTCCGTGTTGTCCAAGTTT	ACAGGACAGGAGGTCACAGG	dJ816K17
stSG76998	AGATCAAGCCCACTCCCTTT	CGTTTTGATATCCTGCCCTC	dJ816K17
stSG77027	GGGCTTGCTGTACTTCATCC	GGGAAACGGGAGCTGTAGA	AI226097
stSG77046	TATGAAGCAGCCACTCACCA	TTCAGGACAAAACCAGTCCC	AA178103
stSG85180	CTGATTTATAAACCCCGCCA	CCAGCTGTCTGGTGACAGAG	dJ686N3
stSG85181	TAGCCAACTCCTGGTCTGCT	AAGGGGATGAGGAGGAAGAA	dJ686N3
stSG85182	ATGCTGCCAACCAACCTAAC	CACTCTCATCGACGTCCTCA	dJ1002M8
stSG85183	ACTCTTCTCAATGGGGCAAA	GACCTCCAAAACTGGGTGAA	dJ828K20
stSG85185	CGAACATCGAAGACATCCTG	AACATTCCCAAGTTCATGCTG	dJ998C11

STS	Sense primer	Antisense primer	Parent sequence
stSG85186	GCCTGTGCCATACACCTCTAA	AGATGTCATCAACATGGGCTC	dJ718P11
stSG85187	GCAGAGGAACAACAGAAGCA	GGCTGCAGAGAGTACAGCAA	dJ718P11
stSG85188	CCAGGGCTCCATACACTGAT	GGGATATTGCCCAGAGTTTG	dJ300I2
stSG85189	TTCATCTGCACTGCCAAGAC	TCTCCTGAGCTACGGAAGGA	dJ269M15
stSG85190	TCAAACTCCGAAGACAGCCT	CCTTTTTGCACGGAGAAGAC	dJ1018E9
stSG85191	GGATGGGACATTTCCTTGAC	CCTGCACACACAATGGAAAG	dJ824F16
stSG85192	TTATCGGTGCAATGTTTGGA	CCAGGTCATTGACAGCAGTG	dJ842G6
stSG85193	CCTGTTGCATACATCTTGGC	TGGCTCTGGAATATGGAAGG	dJ842G6
stSG85194	TTTGGAATCATGAAGGGAGG	CTGCTAAGCTTTGTTTCCCG	dJ447F3
stSG85195	GCGGTGATTGTCCAAAAGTT	AGGACTGGTGGGACACAGAA	dJ447F3
stSG85196	CTCCTGGATGGTGGAGAAGA	CATCTAGGAGCAGTCCCAGC	dJ447F3
stSG85197	AAAACCAGGTCTGGGAAGGT	TGCTTGTCCTTGCACTTCTG	dJ568C11
stSG85198	CCCTGCTTGGAATGTTTTGT	CAGGGCCAAGAGAAATGTGT	dJ686C3
stSG85206	TGCTGCTGGAGATTGACAAC	TTAGGGCTGAGAGCCAGAAA	dJ1069P2
stSG85207	GCTGTGCAGTCCAGCATTT	AATGCTTCCTTCTGCTGCTC	dJ644L1
stSG85208	AGATGTGAGGAGGACCATGC	GTTCTGAAAGGCAGAGTGGC	dJ970A17
stSG85209	AACCGTAATTGTGGGCTGAG	CTGAGCAGCATTCCAACGTA	dJ511B24
stSG85210	GGTGACAGAGGTGAGCAACA	ACACTCACTCTGGACGCCTT	dJ620E11
stSG85211	TATTCAAACCATCGCAGCAG	GCCTTTGGTTTGAGTTTTGG	dJ753D4
stSG85212	TAGGCATGGAAGGGAACAAG	CTTCGGCAAGGTGAAAGAAG	dJ269M15
stSG85213	CCTCTGGTCCTTGTGGAGAA	GCCCTTCTACAGCCAAGATG	dJ138B7
stSG85214	CACGATTTTGGACACGTCAC	CGGGAGAAAAGAGACCTTCA	dJ1108D11
stSG85215	AAGGTGCGCTCCACATAGTC	ACAGAGCGAGCACAAGGAG	dJ995J12
stSG85216	TGAGCAGCTTCTTAGGCACA	AGGTGTTTGTTGCTATCGGG	dJ688G8
stSG85217	TGTTGCGCTTTTGAAATGTT	CCTGCATATCAGCACCTGAA	dJ601O1
stSG85218	CATCTAGGAGCAGTCCCAGC	CTCCTGGATGGTGGAGAAGA	dJ447F3
stSG85219	GCGGTGATTGTCCAAAAGTT	CTCACAGTCCAGTTGGGGTT	dJ447F3
stSG85220	GGGAATGACAATTTTGGTCG	CCTCCCTTCATGATTCCAAA	dJ447F3
stSG85221	ACTCTGTGCCGCCTAGTGAT	TGCACTGTGGGTCTTCACTC	dJ337O18
stSG85222	CAGGATGGGACAAGGAAAAA	CAGGTGGTGAGGTTGAGGTT	dJ337O18
stSG85223	GGTGCTTATCCAGGGTCTCA	ATTGGCTCTGGCTCAGAAAA	dJ337O18
stSG85224	CAGAAGGTAGAACTCGCCAGA	GAGCCTATGAATGAGCTGCC	dJ981L23
stSG85225	CTGTCGTGGCCTGAAGAAAT	CGTACCATACCACCACACCA	dJ686N3
stSG85226	AAGCTGGTTGCTTCTTTCCA	ATCCTCGTGGTCACTGGTTC	dJ686N3
stSG85227	GGCGATGGAATATGAGAGGA	TGACATTCTTGAAGTGGGCA	dJ686N3
stSG85228	TCTCCACCCTCAGAGGCTTA	ATTCTGGCATCCCAGTGAAG	dJ257E24
stSG85229	TGCTGCTTATGTCCTGATGC	TGACCAAATGTGAGACTGGG	dJ179M20
stSG85230	CCTTAACCTGGCCTCACAAA	TGTGTCACCAATTAGCCCTG	dJ179M20
stSG85231	TTGATGTTTGGGCTAAGGCT	CAGCCCCACTTGAGTTTCTC	dJ179M20
stSG85232	CAGGTCCCTTCTGGTCTTTG	CACTCAGCCCTGATGTTTCA	dJ179M20
stSG85233	TCCTTAAGAGCGACCTCAGC	GCGTTTGTCGTTCTTCCACT	dJ1108D11
stSG85234	CTTCACACTTGCCGTTTCAA	GGACAAGAATCTCCGAGACG	dJ1108D11
stSG85235	TGCAGGAGATCCTGGAGAAC	CTCGGACGGAGTGACTGAC	dJ1108D11
stSG85236	GAGACCAAGAGCACTCAGGC	GGGACATGCTAACAGGTGGA	dJ1108D11
stSG85237	GGGTTTGGCTTTGTGTGTTT	AGTGCCACGTAGAGTGGCTT	dJ1069P2
stSG85238	TCAAACTGCAACAGGAGCAC	TCTTGAGGGTTCTGGAGCTG	dJ453O12

STS	Sense primer	Antisense primer	Parent sequence
stSG85239	GTTACTCGGACTTTGAGCGG	CTGCAGGTGACCCAAAAACT	dJ337O18
stSG85241	CACCTCTGGCACAGAGTCAA	ATCTCACAAAAGTGACGGGC	dJ511B24
stSG85242	AGCCATCTAAAGTGCTCCGA	ACTGTGGTGTTGCAAGATGC	dJ511B24
stSG85243	CTAGGGCTTGCACCTCAAAG	CAGTGCACCAAACTCTGCTC	dJ686N3
stSG85244	AAAACCCACCTTGCCTTCTT	TACCTGCCTTCCCAGATCAC	dJ686N3
stSG85245	GCAGAGCTGGACAATTCCTC	AGGGCCTGAGGAAGAGAAAG	dJ686N3
stSG85246	GCTTTTAACACCCCTGCAAA	ACCAAATGTCCAGGAACCAA	dJ620E11
stSG85247	AAGGCGAGATCACTCTGCTC	ACACCAGCCTTGAGTTGCTC	dJ620E11
stSG85248	CTCCCAAATGTATGCGCTTT	AAGTTGTTGCTGTTGCCTCC	dJ461P17
stSG85249	TCCTCTTTCTCCTCCTCTGG	GTCTGGAGGAGCAATTGGG	dJ309K20
stSG85250	ATGGTGAAGAACCTGAAGCG	GGCTTCATGATCCAGGTGAT	dJ310O13
stSG85251	CACAGCACCTCACAGCATTC	GTGATTGGCTGTCTCCTGGT	dJ310O13
stSG85252	GGGCAGATCCTGTCCTTACA	TAACTTGAACCCCCTCAACC	dJ310O13
stSG85253	CTCCTACCAGAAGGTGCTGC	TGACGTTGAACCAGCAGAAG	dJ310O13
stSG85254	GAGCAGGACAGCATCCTGAG	CGGTCTTGAGCACTAGCAGG	dJ310O13
stSG85255	AGGACATCGGCTACTTCGAG	GATGTCGTGCGTGATGTCAG	dJ310O13
stSG85256	CCACTCAACCTCGAGTAGCC	TCAGGGGACTCACAGGATTC	dJ460J8
stSG85257	TGAAAGAGCCCAGGTACAGG	CGGTACAGCCTCGTCCTAGA	dJ568C11
stSG85258	TGCTTGTCCTTGCACTTCTG	AAAACCAGGTCTGGGAAGGT	dJ568C11
stSG85259	CTCATTTTCGGTCATGCAGT	ATCGGATAGCGTCCATCTGT	dJ687F11
stSG85260	GACGCTGCCTGTGGAACT	GTGGCCCGAGAATAAAGAGC	dJ726C3
stSG85261	TGGAGGAGGACTCATCGACT	GCCATTGGTGATATCCAGGT	dJ726C3
stSG85262	ATGTCCATTCCAGATTAGCAA	GAGGCCCTGGGGTCTTATTA	dJ727I10
stSG85263	GAAGTACCCAGGGGGACAGT	GCAACTGCACAGGCTGTATC	dJ824F16
stSG85264	AGTCACACTTGAAGGGACGG	GCATCAAGCACACCTTCAAA	dJ831D17
stSG85265	TAGTCAGAAGCCCCAGCACT	CACTTCTCCCTGAGCTGTCC	dJ860F19
stSG85266	GCATAGACAGTGCTGAGCCA	CTCGTGGTGTCCTACCCATT	dJ860F19
stSG85267	GCTAGGTGAAAACTGGTGGC	TCAAACTCCGAAGACAGCCT	dJ1018E9
stSG85268	AAGGACTCTGCACTGAAGCC	ACTACTGGAGACCACGTGCC	dJ1025A1
stSG85269	GAGTTGAGCACGGAGTCTGG	CTGGTTTCAAAACCGCAGG	dJ1025A1
stSG85270	CAAACATTATGTCCACCGGG	ATCTCCTTCAGCATCTTCCG	dJ686N3
stSG85271	CTGGAAAGGGCAAGAATCAG	AATCTCCTCACCCGAACCTT	dJ453C12
stSG92802	CGCTGAGAGTGAGCTATCCC	GGGTAGATGTCTTTGGGCTG	dJ450M14
stSG92803	GTGAACGCCTTGATAATGCC	TCTCTCACAGAGATGTGGCG	dJ881L22
stSG92804	ACGTGTGAAGGCTGAGGACT	GATGATGGCCTCCTGAGTGT	dJ998H6
stSG92807	AAGGCCAAGATTCCCTGAGT	CCTACCCTTCTTTCCCGAAC	dJ191L6
stSG92808	TGGGAATTTCATCCCCTAAA	ACTCTCTGATGGGAGCCTTG	dJ1183I21
stSG92809	AGCTGGCAAAAATATGACGG	GGCTAGGTGTCCTGGGGTAT	dJ620E11
stSG92810	GAGCCCGCAAGTTTGATTAC	CGGAAGCAAGGACATCTTTT	dJ1013A22
stSG92811	CTGGCCTCTCTTCAACATGG	AATCAGTCAGACCAGGTCCC	dJ461P17
stSG92812	ATTCAGGGAGACCCAGTGTG	AGCCCTGCTATGCTGTCTGT	dJ450M14
stSG92813	TGGTTCAGTAGCCCTGTGTT	TTGTTACAAGGCAGGCACAA	dJ450M14
stSG92814	ATTTTGGTGAGCTCAATGGC	ACCCAGACTCCTCCTGGAAT	dJbA394O2
stSG92815	TGGAGGTGTGAGATGAGCTG	TGGACGTGTCAATCCTTCAG	bA394O2
stSG92816	GTAACCACTTACAGGCCGGA	CTCTGAAAACTGTCGCGATG	dJ28H20
stSG92817	CGCCGCCGAGTCCCGCTCGC	CGCCATGGGCCACTCCCCAC	dJ28H20

STS	Sense primer	Antisense primer	Parent sequence
stSG92819	CAATGATGTGGTCTTCAGCG	CCCAGAGCATCTGACTTGGT	dJ450M14
stSG92820	GATGGAGTGAACCCAGCAGT	GTCCACCACAGAGGGACAGT	dJ450M14
stSG92821	CTAAGATCGTTCTCCGCAGG	CTGGAGGAGCTGGACTTGAC	dJ781B1
stSG92822	GGTACCTCCAATCAGAGCCA	GTTGGGGTTCCTGGGATACT	dJ781B1
stSG92823	AACCGATTCACCAACCAGTC	GTGGGTGTCACTGGGATTTC	dJ781B1
stSG92824	CCCCCTGCCTAATAGCTACC	GGGTCTGGGAGTGCACTAGA	dJ781B1
stSG92825	ACACGGCACAAGAAGAACCT	GCTGCTTCAGCTCCTCAATC	dJ781B1
stSG92826	GTAACGGGCACCTCAAGTTC	TCAGGATGATGGTCTGGGTT	dJ781B1
stSG92827	TCATAAGGATTTCTTGGCCG	CACGCAGAACTTGTCCTTGA	dJ998C11
stSG92828	CTCTGAACCAAAGGAGCAGG	CTGCTTTGGTGAGGATGTTC	dJ686N3
stSG92829	TTGGAAGAGGGAGTCACCAC	CTACTTCCAACACCCGCATT	dJ686N3
stSG92830	GTGTCCCGTGTGCTTAGAGG	GCTTCTTCGGCTTCAGACAT	dJ963K23
stSG92832	AGAGCACTTCCTGGCATGTT	CAGCAAAGACACAGAGGCAC	dJ28H20
stSG92833	GTGCTATGCCTCCACCATCT	GTCCTCATTGGTCCTTGGAA	dJ28H20
stSG92851	CCATGCCTCTTGAAGCTTTT	CCAGAACTGGGGTTGAGAAA	dJ1028D15
stSG92852	AATTAGCGCCATCGACATTC	AGATGGCCACCTGCAAATAC	dJ1028D15
stSG92853	GCAGGAAGGAGTGACCTGAG	ATTTTGTCAAAGTGGCCTGG	dJ881L22
stSG92854	CTGGTCTGAGGAGAAGTGGC	CTGGGTATAATGGGAGCAGG	dJ881L22
stSG92855	CCAGGCCTTGTGCTAGACTC	TGACGATCTGATTAAGGTCCG	dJ881L22
stSG92856	TGTGAGCAGAAACAACCTGTG	GCGTTGTGGAACGATTCAT	dJ881L22
stSG92857	CCATATGTGTAGGATGCCCA	TGAGTACACACCGTCTCCCA	dJ1013A22
stSG92858	TCCAATATTAGCGGCAGAGC	GGGCATAGTGAGCACCAGAT	dJ1013A22
stSG92859	GTCCTGTGCACCCTGTGTTA	GGTGATGGCGAAGTAGAAGG	dJ781B1
stSG92860	GGTGGCAGAAATGTGCTTCT	CTTGGCTGAAGGAAAGATGG	dJ781B1
stSG92861	ACTACAAGGCCGTCCACAAC	GTAGGCAGCACTCAGCTCCT	bA465L10
stSG92862	AGACAGTGCCCGAACACATT	CTAACCCCAACAGCACAGGT	bA465L10
stSG92863	CCGCTGTCACCGTTTACATA	GCACTGAGGAGCTCTGGTCT	bA465L10
stSG92864	CAAGTGCTCCCCTCTGCTAC	CTGTTTGCTGCTGTGGAAAA	bA465L10
stSG92865	GTTCACGGTCACCTCGCT	CTTTGACGTCTTCCCCCG	bA465L10
stSG92866	GCAAATGGCTTAGAAGCAGG	CTTGTGTGACCAGGCTCTGA	bA394O2
stSG92867	GAGAACATCCAGATTCCCGA	TGGCCACCAAAATCACTACA	bA394O2
stSG92868	CCCTCAAGAAAAATGCCCTA	TTCTCATGCTTCCCAAATCC	bA179N14
stSG92869	TTCCCAACCAAGAAGGACAC	GTCCACCACGTCCTGAGTTT	bA323C15
stSG92870	CAACCTCTCGCTCTCTGGAC	CCCACCTCAGTCGTAAGCTC	dJ66N13
stSG92871	AGCAGCCCCTTCAAGACATA	GGGAGATGACAGTTTCCCAA	dJ963K23
stSG92872	CGCAGACTCACACATGTCAA	CTTGCACCTAAAGCACACCA	bA347D21
stSG92873	GCAGAGTTGGCTGCTTCTCT	CAGCGAGGAGGCTTTCATAC	bA347D21
stSG92874	GTCTTGCCTGCTTGTTCTCC	TTCATCACATCTGAGCCAGG	bA347D21
stSG92875	CCAGGGAGGAAGAACCACTT	GACCTTTGAGCATCTCCTGC	bA347D21
stSG92876	ATGCCGAGGAGCCGGG	CCGGGAGGCAGCAGAG	dJ614O4
stSG92877	CCTATGACTCACGGGCATCT	TCGATCGTTGTCTGATCCAA	dJ614O4
stSG92878	CTTGAAATGGACCCCAACTG	AGGAGCAGCAGCTCTTCTTG	dJ614O4
stSG92880	ATCTGCTGCTCAATGCCAG	GGATGACGTACATGACAAGGC	dJ1022E24
stSG92881	CTGAGGCACCTAGGGAGTTG	AAGATGCAGGCGAGAAAGAC	dJ353C17
stSG92882	TGTCAAGCCCTGCTCTTTCT	GTTCCTTCTGCTGCAACTCC	dJ995J12
stSG92883	ATTCTGAAAGAGTGGCCCAG	CACATGGGCTAATGGAAAGG	dJ461P17

STS	Sense primer	Antisense primer	Parent sequence
stSG92884	TGCTGCTTGCTGTGTAGACC	CTCACTCCTGCTTCTCCAGG	dJ461P17
stSG92885	TACCAGCTAGAGCCAGTGGG	CCCCTAGATTCTATTGGCCG	dJ688G8
stSG92886	CTCACCGAGATTGTCAAGCA	TGTGGGCACAGTCTTGGATA	dJ688G8
stSG92887	TGCACCATCCGAAATAAAGA	GGGTCAGGAAAATAGCAAACA	dJ601O1
stSG92888	AACAGCAACACAGGCTCCTC	CGGTTGTTCAAATCTGAGGG	dJ991B18
stSG92889	AAGGATTGTTGGGAAGGTCC	GCCTGGGAAAAGCTACTTCA	dJ710H13
stSG92890	AATCAGTTCCATCTGGGTCC	GAAAGACCCTGCAGAATGGA	dJ1123D4
stSG92891	GAAATGCTTCCTTCTGCTGC	CAGTCCAGCATTTGCTCCAT	dJ644L1
stSG92892	GTTCTGAAAGGCAGAGTGGC	AGATGTGAGGAGGACCATGC	dJ970A17
stSG92893	GCCCTCAGCAAATCTGAGAA	GAAGCCTCAGACTCCTGGCT	dJ970A17
stSG92894	CTGGCATTGGCTCTGTGAG	TTTGCAGTATTGCTGAGTGCC	dJ128O17
stSG92895	ATGTGATTGGATGCCATGTG	GTTCCATGGCTAGTCCCAGA	dJ128O17
stSG92896	GGTATAGATGCCGGGGAAGA	CGCAGCAGAGAACCAAAAAT	dJ1030M6
stSG92897	CACGCTGATCAGAGACAGGA	GAGACTTGTGGGAAACGGAG	dJ981L23
stSG92898	CATCTTCCCCATCCTTGAAA	TCCCATCTAACCTCACTCGG	dJ1057D4
stSG92899	GCCAGGAGTGCACAGATGTA	ATTCCACGTCATCAGCCTCT	dJ73E16
stSG92900	AAGCAACCTCAAGTTCCACG	CTCCACCCTCCTTTTTCCTT	dJ906C1
stSG92903	TTCCATCCAGGAACCTTCAC	TGAGTCACTTCACACAGCCC	dJ453O12
stSG102600	CCCATCTACACTGCCGGTAT	CCCTCTGTGCCTATGTGGTG	dJ620E11
stSG102601	GTCAGTGTGGCACTGTCCTG	TTACAGCAAGGTCCCAGGTT	dJ620E11
stSG102602	AAGTTCCTGTACTGCTCGGC	CTGTGGAGGGCAGAGAAGAG	dJ620E11
stSG102603	CCTGAGCAGTGATGACGATG	GCGGAGGGACTTCTTGTAGG	dJ450M14
stSG102604	GATGGAGTGAACCCAGCAGT	GTCCACCACAGAGGGACAGT	dJ450M14
stSG102605	GTCTGTCTGGCTTCCCCTC	GGGATAGCTCACTCTCAGCG	dJ450M14
stSG102606	GACGGTGAAGGAGCTGTACC	CCAAAACGCACGTGGAAG	dJ450M14
stSG102607	TCACTCAGGCGTAAGATCACC	TTTGGAAATGACCAACTCCC	dJ1121H13
stSG102608	CTCCAAGTCTCTGCTGCCA	GGGACATGCTAACAGGTGGA	dJ1108D11
stSG102609	TACCTGAGATGTGCTGGCTG	GGCCTCAGTTTCTCGATCTG	dJ1108D11
stSG102610	ACTGTGCTCCACTTTCTGGC	CTCAGCCTCCTGGCCAAT	dJ1108D11
stSG102611	TCTTGTGGGGTGAATGTGAA	AGCCAGAAGTTCCTGCTGAG	dJ1108D11
stSG102612	CTGGGGACTCTCAGGAAACA	CATCTACTTCCCGTGCATGA	dJ781B1
stSG102613	GACCATTCTTCCCTGGTCC	GGCCAGCCTGGAAGACTTA	dJ781B1
stSG102614	AGAAAATTGTTCCTGCCCAA	TTTTTCCAAGTTGGTCCGAG	dJ211D12
stSG102615	TTCTTCCAGTTCCTTCACAGG	CTGCTTCAAGTCCGATCCTC	dJ211D12
stSG102616	TTTTGCAGGTGACCAGACAG	CTGGCCTCCATACCACACTG	dJ461P17
stSG102617	AACATTTCTTTCCACGGCTG	TCAAAGTGGAATGCGAAGTG	dJ461P17
stSG102618	ATCCTCTGAAGAAGGGCACC	CCTCCACAGCCACTGAAGAC	dJ447F3
stSG102619	ACAATGGTACCACCTGCCAT	AGCCCCACCTAGGAAGACAT	dJ337O18
stSG102620	CTCTTTCGGGAACAGCAGTC	GTTCCGTCCTTGCTTCTCAG	dJ337O18
stSG102621	TTCCTTCAGTGTGGGTGACA	GCCTTCTTGGACTTCAGTGG	dJ337O18
stSG102622	ATTCGGACCCAATCAAACAG	TGTCACCCACACTGAAGGAA	dJ337O18
stSG102623	GGTAGAACCCGTGGTGACAG	CGGCAGATCACTATTCCCTC	dJ337O18
stSG102624	GCAGCACGTTCAGCTCATAG	GATTCGGGTGCACTCTGG	dJ337O18
stSG102625	ATTTAGAGATGTGGCCGTGG	CCAAAGACGCAAGGTATTTACA	dJ981L23
stSG102626	ACCGGTTATCCAGGCCTATC	ACACTGTCCTGGGCTTCATC	dJ257E24
stSG102627	ATTGGTAGGAGCTGTGGACG	TCCTCAATACCACTCACCAGC	dJ257E24

STS	Sense primer	Antisense primer	Parent sequence
stSG102628	GCAGCTGGTGAGTGGTATTG	CACTTGGGGTTCTGGAAGG	dJ257E24
stSG102629	TGACAAATGTCTGCTGCCTC	CATTTCCCCTTTTCTTTCCC	dJ569M23
stSG102630	AAATTGCCAGCCTCATAAGC	CACACAATGTCAAGATCCCG	dJ191L6
stSG102631	GACCATTGTGGAAAAATGCC	GCAGCCCTCTGCTACTGTTT	dJ892M9
stSG102632	TTTCCAAAGCCTGTTTGCTT	GCTGGATTGGCAGAGCTAAG	dJ892M9
stSG102633	TGTAGCAAATTGGGAAGGCT	CCTTCCCCTTTAACCCTCAC	dJ892M9
stSG102634	TCATGCCCACAGAATACAGC	TTTTCCAAAAACAGCAAGCA	dJ892M9
stSG102635	TGGGGAAACCATTGATCTGT	GGAGGCTTGGAGGAAAGATT	dJ409O10
stSG102636	CAGCCCCTCCACATTGTTTA	CCAGCCAGGTAGACGTGTTT	dJ644L1
stSG102637	TTCAAAAGTGCTTGCTGGTG	GCAAAAGGCCATTTTTCACT	dJ644L1
stSG102638	CCCCATTTAGGGTCTGGTTT	AAATGCCTGCAATTCCAATA	dJ970A17
stSG102639	CAAAGACTGGGAAAAATGGC	TTGTTTTCAGCAGTTGTCGC	dJ970A17
stSG102640	TTCGTTTATTCTGGGGATCG	TGCTCTGCAAGGCTATTTTG	dJ94E24
stSG102641	GCAGCAACTAAATGAGGCGT	TAATTATTCTGCGGCTGCCT	dJ94E24
stSG102642	TGAGCTATCATAGAGGAGCCG	GCCTTTTCTCTTCCATTCCC	dJ1167E19
stSG102643	TAGTCTGGGCTTCCTCATGC	TACCAAGTTTCTGCGGGTGT	dJ1030M6
stSG102644	CGCCAAATGAAAATGTTTGT	CATTTGGAGCTCTCTCCCAT	dJ495O3
stSG102645	TTGCAGCAACAACTTAACGG	CCTCTTTCTCCCTTGTCCCT	dJ394O2
stSG102646	GCAGTTAAAGTCCCCCTGGT	ATCAGCCAAAGGTGCTGACT	dJ394O2
stSG102647	GTGGTCTTTTCAGAGCAGCC	CTTCATCTTCCTGGCGGTAG	dJ394O2
stSG102648	CTTGCTCTGCTCGTCCTGTT	CTGAAGCTCCGAATCCCAG	dJ453C12
stSG102649	CTTCCTGGTTGCTTCTTTGC	GCAGGAGATGCTCAAAGGTC	dJ66N13
stSG102650	AAGCCTTGAGGAGTTCAGCA	ACCCTGTCTCCTTTCGGTCT	dJ66N13
stSG102651	TTCTTCCACTGCAACCTTGA	ATCTACCGCTGTCCATCTGC	dJ155G6
stSG102652	AAGAAAAATATGCCCCCTGG	AGCTGATGCAGCAGGAGTTT	dJ1123D4
stSG102653	CCAATGCTGGAGCTGTTAGG	GACTCCATCAGGGAGCTTTG	dJ1123D4
stSG102654	GCTTTTGGTTGCTGTGTTGA	TGCTAACTGTGCATCCTTGC	dJ644L1
stSG102655	CCAGTGGCACAGTGGGTAG	AAATCCAGTGCAAGTCACCA	dJ644L1
stSG102656	ATCTCGTACACAAGGTGGGC	GTCACTGATTCTGCTGGGGT	dJ644L1
stSG102657	CATTAACAGGGTGATGCCAA	CATCCCTGTCTGGAAAGCAT	dJ644L1
stSG102658	ATGATCAATCTTGCCGGATG	TCTTTCTTGCCAAAAGCGAC	dJ970A17
stSG102659	CTCTTTTCCTGCTCTGCCTG	TCAATCATGGTCAGGACTCG	dJ94E24
stSG102660	TGCTTTTTCAGTGGAGGTTG	TTCATCTTGGGTGTCCAATG	dJ179J15
stSG102661	ATGCTGGGCTGAAAAGAGAA	TTTCACAGGATGCAGAACCT	dJ179J15
stSG102662	AGCCCCATTAGCAGAGGAGT	TCCAGACTAGGAAGGCTGTCA	dJ1030M6
stSG102663	TTGAAGCAAAGCAAACATGC	ATGAATGGGTTTCAGTTGGC	dJ1005L2
stSG102664	ATATGGGCAGCTACACCAGC	ATTGGGGAAGGCATCTCTCT	bA445H22
stSG102665	CTGGGCTGTGAAGAAGGAAG	CGTCCACAGCTCCTACCAAT	dJ257E24
stSG102666	GAGACAAGAGACCACGAGGC	AACATTGGGTAGTGCCTTGC	dJ511B24
stSG102689	GTGGTGCAGAGTACTGGGGT	GGACCAACGGAAAGAGTTCA	dJ211D12
ststSG76940	AACATCATGATAGGGCCTGG	TTTCATTCAGTTTCACCCCC	dJ620E11

Appendix 3: cDNA probe repository (also available from http://webace.sanger.ac.uk/cgi-bin/webace?db=acedb20&class=Probe).

Probe	cDNA pool	Probe	cDNA pool
pr8000.A.FBI	Fetal_brain_vecI	pr71398.A.T5	Testis_vec5
pr8000.A.FBJ	Fetal_brain_vecJ	pr71398.S.T4	Testis_vec4
pr8000.A.FluR	Fetal_lung_vecR	pr71402.A.T2	Testis_vec2
pr8000.A.T1	Testis_vec1	pr71404.S.T1	Testis_vec1
pr8000.S.FBI	Fetal_brain_vecI	pr71404.T1.1	Testis_vec1
pr8000.S.FBJ	Fetal_brain_vecJ	pr71404.T1.2	Testis_vec1
pr8000.S.T1	Testis_vec1	pr71405.A.Flo	Fetal_liver_vecO
pr8000.S.T3	Testis_vec3	pr71405.S.FlO	Fetal_liver_vecO
pr34084.A.AH8	Heart_vec8	pr71408.A.FlA	Fetal_liver_vecA
pr34084.S.AH8.600	Heart_vec8	pr71408.A.FlJ	Fetal_liver_vecJ
pr34084.S.AH8.1500	Heart_vec8	pr71408.A.FlM.1	Fetal_liver_vecM
pr64002.A.FbL	Fetal_brain_vecL	pr71408.A.FlM.2	Fetal_liver_vecM
pr64002.A.FbN	Fetal_brain_vecN	pr71408.S.FlA	Fetal_liver_vecA
pr64002.S.FbN	Fetal_brain_vecN	pr71409.A.T2.1	Testis-vec2
pr64002.S.T10	Testis_vec10	pr71409.A.T2.2	Testis-vec2
pr64573.A.R	Marathon_Brain	pr71409.A.T2.400	Testis_vec2
pr66874.A.FBP.1	Fetal_brain_vecP	pr71409.A.T2.500	Testis_vec2
pr66874.A.FBP.2	Fetal_brain_vecP	pr71409.A.T3	Testis_vec3
pr66874.S.FBP.1	Fetal_brain_vecP	pr71409.A.T5	Testis_vec5
pr66874.S.FBP.2	Fetal_brain_vecP	pr71409.A.T7	Testis_vec7
pr66877.A.FluV	Fetal_lung_vecV	pr71409.A.T9	Testis_vec9
pr66877.S.74162.A	Fetal_lung_vecV	pr71409.A.T9.400	Testis_vec9
pr66877.S.FluV.1	Fetal_lung_vecV	pr71409.A.T9.600	Testis_vec9
pr66877.S.FluV.2	Fetal_lung_vecV	pr71409.A.T10	Testis_vec10
pr66877.S.FluV.3	Fetal_lung_vecV	pr71409.A.T10.400	Testis_vec10
pr66877.S.FluV.4	Fetal_lung_vecV	pr71409.A.T10.600	Testis_vec10
pr66877S76895A.FLuV	Fetal_lung_vecV	pr71409.S.T2	Testis-vec2
pr71374S76868A.FB2	Fetal_brain_SP2	pr71409.S.T5	Testis_vec5
pr71374S76868A.FB2.B	Fetal_brain_SP2	pr71409.S.T7	Testis_vec7
pr71392.A.T3	Testis_vec3	pr71409.S.T9	Testis_vec9
pr71392.A.T6.500	Testis_vec6	pr71409.S.T10	Testis_vec10
pr71392.A.T6.700	Testis_vec6	pr74159.A.FlE	Fetal_liver_vecE
pr71392.A.T7.500	Testis_vec7	pr74159.A.FlH	Fetal_liver_vecH
pr71392.A.T7.700	Testis_vec7	pr74159.A.T2	Testis-vec2
pr71392.A.T8.500	Testis_vec8	pr74159.A.T2	Testis_vec2
pr71392.A.T8.700	Testis_vec8	pr74159.A.T6	Testis_vec6
pr71392.A.T9.500	Testis_vec9	pr74159.S.FlE	Fetal_liver_vecE
pr71392.A.T9.700	Testis_vec9	pr74159.S.FLH	Fetal_liver_vecH
pr71392.S.T3	Testis_vec3	pr74159.S.T6	Testis_vec6
pr71394.A.R	Marathon_Brain	pr74161.A.FBV	Fetal_brain_vecV
pr71394.A.R2	Marathon_Brain	pr74161.A.FBY	Fetal_brain_vecY
pr71394.A.R4	Marathon_Brain	pr74161.S.FBV	Fetal_brain_vecV
pr71394.A.R5	Marathon_Brain	pr74161.S.FBY	Fetal_brain_vecY
pr71396.A.T1	Testis-vec1	pr74162.S.FBD	Fetal_brain_D
pr71396.A.T3	Testis-vec1	pr74162.S.FLJ	Fetal_liver_vecJ
pr71396.S.T1	Testis-vec1	pr74162.S.FluV	Fetal_lung_vecV
pr71398.A.T4	Testis_vec4	pr74162.S.T1.1000	Testis_vec1

Probe	cDNA pool	Probe	cDNA pool
pr74162.S.T1.1100	Testis_vec1	pr76874.A.FLT	Fetal_liver_vecT
pr74162.S.T5.350	Testis_vec5	pr76874.S.AH1.300	Heart_vec1
pr74162.S.T5.550	Testis_vec5	pr76874.S.AH1.900	Heart_vec1
pr74163.A.ALu3	Adult_lung_vec3	pr76874.S.AH1.900.B	Heart_vec1
pr74163.A.FluV	Fetal_lung_vecV	pr76874.S.FB3.350	Fetal_brain_vec3
pr74163.S.66877.A	Fetal_lung_vecV	pr76874.S.FB3.1000	Fetal_brain_vec3
pr76866.A.FLB	Fetal_liver_vecB	pr76874.S.FBG	Fetal_brain_vecG
pr76866.A.FLD	Fetal_liver_vecD	pr76874.S.FBJ	Fetal_brain_vecJ
pr76866.A.FLuJ.500	Fetal_lung_vecJ	pr76874.S.FLT	Fetal_liver_vecT
pr76866.A.FLuJ.1000	Fetal_lung_vecJ	pr76875.A.FBO	Fetal_brain_vecO
pr76866.A.T1	Testis_vec1	pr76875.A.FLuS	Fetal_lung_vecS
pr76866.S.T1	Testis_vec1	pr76875.S.FBO	Fetal_brain_vecO
pr76868.A.FBI.1	Fetal_brain_vecI	pr76875.S.FLuS	Fetal_lung_vecS
pr76868.A.FBI.2	Fetal_brain_vecI	pr76876.A.FBK	Fetal_brain_vecK
pr76868.A.FLO	Fetal_liver_vecO	pr76876.A.FBL	Fetal_brain_vecL
pr76868.S.FBI	Fetal_brain_vecI	pr76876.A.T1.1000	Testis_vec1
pr76869.A.T1	Testis_vec1	pr76876.A.T1.1200	Testis_vec1
pr76869.A.T3.1200	Testis_vec3	pr76876.S.FBK	Fetal_brain_vecK
pr76869.A.T3.1400	Testis_vec3	pr76876.S.FBL	Fetal_brain_vecL
pr76870.A.FBI	Fetal_brain_vecI	pr76876.S.T1	Testis_vec1
pr76870.A.FLL	Fetal_liver_vecL	pr76877.A.FBK	Fetal_brain_vecK
pr76870.A.FLO.500	Fetal_liver_vecO	pr76877.A.FLQ	Fetal_liver_vecQ
pr76870.A.FLO.1100	Fetal_liver_vecO	pr76877.A.FLR	Fetal_liver_vecR
pr76870.A.T1.800	Testis_vec1	pr76877.A.T1.1100	Testis_vec1
pr76870.A.T1.1000	Testis_vec1	pr76877.A.T1.1200	Testis_vec1
pr76870.S.FBI	Fetal_brain_vecI	pr76877.S.FBK	Fetal_brain_vecK
pr76870.S.FLL	Fetal_liver_vecL	pr76877.S.FLQ	Fetal_liver_vecQ
pr76870.S.FLO.800	Fetal_liver_vecO	pr76877.S.FLR	Fetal_liver_vecR
pr76870.S.FLO.1000	Fetal_liver_vecO	pr76877.S.T1	Testis_vec1
pr76870.S.T1	Testis_vec1	pr76880.A.AH1	Heart_vec1
pr76871.A.AHA	Heart_vecA	pr76880.A.AH10	Heart_vec10
pr76871.A.AHA.350	Heart_vecA	pr76880.S.AH1.850	Heart_vec1
pr76871.A.AHA.700	Heart_vecA	pr76880.S.AH1.1100	Heart_vec1
pr76871.A.AHB	Heart_vecB	pr76880.S.AH10	Heart_vec10
pr76871.A.AHB.350	Heart_vecB	pr76883.A.FBP	Fetal_brain_vecP
pr76871.A.AHB.1000	Heart_vecB	pr76883.A.FLuV	Fetal_lung_vecV
pr76871.A.AHD	Heart_vecD	pr76883.S.FBP	Fetal_brain_vecP
pr76871.A.AHD.350	Heart_vecD	pr76883.S.FLuV	Fetal_lung_vecV
pr76871.A.AHD.1000	Heart_vecD	pr76885.A.AH1	Heart_vec1
pr76871.A.AHK	Heart_vecK	pr76885.A.T3.700	Testis_vec3
pr76871.A.AHK.350	Heart_vecK	pr76885.A.T3.900	Testis_vec3
pr76871.A.AHK.700	Heart_vecK	pr76885.A.T4.400	Testis_vec4
pr76871.S.AHA	Heart_vecA	pr76885.A.T4.900	Testis_vec4
pr76871.S.AHB	Heart_vecB	pr76885.A.T5	Testis_vec5
pr76871.S.AHD	Heart_vecD	pr76885.A.T5.400	Testis_vec5
pr76871.S.AHK	Heart_vecK	pr76885.A.T5.900	Testis_vec5
pr76874.A.AH1	Heart_vec1	pr76885.A.T9	Testis_vec9
pr76874.A.FB3	Fetal_brain_vec3	pr76885.S.AH1	Heart_vec1
pr76874.A.FBG	Fetal_brain_vecG	pr76885.S.T5	Testis_vec5
pr76874.A.FBJ	Fetal_brain_vecJ	pr76885.S.T9	Testis_vec9

Probe	cDNA pool	Probe	cDNA pool
pr76895.S.A.FLuV	Fetal_lung_vecV	pr76917.A.FBF	Fetal_brain_vecF
pr76895S76896A.FLuV	Fetal_lung_vecV	pr76917.A.FBL	Fetal_brain_vecL
pr76895S76896A.FLuV.2	Fetal_lung_vecV	pr76917.A.FBO	Fetal_brain_vecO
pr76896.S.A.FLuV	Fetal_lung_vecV	pr76917.S.76918.A.T9	Testis_vec9
pr76896S74162A.FLuV	Fetal_lung_vecV	pr76917.S.FBF	Fetal_brain_vecF
pr76898.A.ALu3	Adult_lung_vec3	pr76917.S.FBL	Fetal_brain_vecL
pr76898.A.ALu8	Adult_lung_vec8	pr76917.S.FBO	Fetal_brain_vecO
pr76898.A.FLu7	Fetal_lung_vec7	pr76917.S.T9	Testis_vec9
pr76898.A.R1	Marathon_Brain	pr76918.A.T3	Testis_vec3
pr76898.A.R2	Marathon_Brain	pr76918.A.T5.250	Testis_vec5
pr76898.A.R3	Marathon_Brain	pr76918.A.T5.700	Testis_vec5
pr76898.A.R4	Marathon_Brain	pr76918.A.T6.250	Testis_vec6
pr76898.A.R5	Marathon_Brain	pr76918.A.T6.700	Testis_vec6
pr76898.S.74163.A.FLu7	Fetal_lung_vec7	pr76918.A.T8.250	Testis_vec8
pr76899.A.T4	Testis_vec4	pr76918.A.T8.700	Testis_vec8
pr76899.A.T5	Testis_vec5	pr76918.S.T9	Testis_vec9
pr76899.S.T4	Testis_vec4	pr76923.A.AH5	Heart_vec5
pr76899.S.T5	Testis_vec5	pr76923.A.AH9	Heart_vec9
pr76900.A.FB7	Fetal_brain_vec7	pr76923.A.FB9	Fetal_brain_vec9
pr76900.S.FB1	Fetal_brain_vec1	pr76923.S.AH5	Heart_vec5
pr76900.S.T5	Testis_vec5	pr76923.S.AH9	Heart_vec9
pr76901.A.FB7	Fetal_brain_vec7	pr76923.S.FB6	Fetal_brain_vec6
pr76901.A.T5	Testis_vec5	pr76923.S.FB7	Fetal_brain_vec7
pr76901.S.FB1	Fetal_brain_vec1	pr76923.S.T9	Testis_vec9
pr76901.S.FB7	Fetal_brain_vec7	pr76924.A.T7	Testis_vec7
pr76901.S.T5	Testis_vec5	pr76931.S.AH1	Heart_vec1
pr76902.A.FB1	Fetal_brain_vec1	pr76931.S.ALu1	Adult_lung_vec1
pr76902.A.FB7	Fetal_brain_vec7	pr76931.S.T1	Testis_vec1
pr76902.S.FB1	Fetal_brain_vec1	pr76931.S.T3	Testis_vec3
pr76902.S.FB7	Fetal_brain_vec7	pr76931.S.T4	Testis_vec4
pr76902.S.T5	Testis_vec5	pr76932.A.R	Marathon_Testis
pr76904.76898.A.	Neils_eye_cDNA	pr76932.A.R2	Marathon_Testis
pr76911.SA.T5	Testis_vec5	pr76932.A.T3	Testis_vec3
pr76912.SA.T4	Testis_vec4	pr76932.A.T5	Testis_vec5
pr76912.SA.T5	Testis_vec5	pr76932.A.T9	Testis_vec9
pr76913.A.R	Marathon_Brain	pr76932.A.T10	Testis_vec10
pr76913.A.R2	Marathon_Brain	pr76932.S.T3	Testis_vec3
pr76913.A.R3	Marathon_Brain	pr76932.S.T5	Testis_vec5
pr76913S76914A.AH10	Heart_vec10	pr76932.S.T7	Testis_vec7
pr76913S76914A.FLu9	Fetal_lung_vec9	pr76932.S.T9	Testis_vec9
pr76914A.AH5	Heart_vec5	pr76932.S.T10	Testis_vec10
pr76914A.AH7	Heart_vec7	pr76936.A.AHA	Heart_vecA
pr76916A.AH1	Heart_vec1	pr76936.A.AHC.600	Heart_vecC
pr76916A.AH10.800	Heart_vec10	pr76936.A.AHC.2000	Heart_vecC
pr76916A.AH10.1000	Heart_vec10	pr76936.A.FBB	Fetal_brain_vecB
pr76916A.FB6.800	Fetal_brain_vec6	pr76936.S.AHA	Heart_vecA
pr76916A.FB6.1000	Fetal_brain_vec6	pr76936.S.AHB	Heart_vecB
pr76916A.FL1	Fetal_liver_vec1	pr76936.S.AHC	Heart_vecC
pr76916A.T1.600	Testis_vec1	pr76936.S.FBB	Fetal_brain_vecB
pr76916A.T1.800	Testis_vec1	pr76938S76916A.AH8	Heart_vec8

Probe	cDNA pool	Probe	cDNA pool
pr76938S76916A.AH10	Heart_vec10	pr85181.A.ALuG.150	Adult_lung_vecG
pr76938S76916A.T2	Testis_vec2	pr85181.A.ALuG.350	Adult_lung_vecG
pr76940.S.FB1	Fetal_brain_vec1	pr85181.A.T4	Testis_vec4
pr76940.S.FB7	Fetal_brain_vec7	pr85181.S.AHK	Heart_vecK
pr76940.S.T5	Testis_vec5	pr85181.S.T4	Testis_vec4
pr76941.A.AH1	Heart_vec1	pr85185.A.ALuP	Adult_lung_vecP
pr76941.A.AH2	Heart_vec2	pr85185.A.ALuQ	Adult_lung_vecQ
pr76941.A.AH5	Heart_vec5	pr85185.A.R	Marathon_Testis
pr76941.A.AH8	Heart_vec8	pr85185.A.R2	Marathon_Testis
pr76941.S.AH5	Heart_vec5	pr85185.A.R3	Marathon_Testis
pr76941.S.AH8	Heart_vec8	pr85185.A.R4	Marathon_Testis
pr76944.A.T6	Testis_vec6	pr85185.A.R5	Marathon_Testis
pr76944.A.T7	Testis_vec7	pr85185.S.ALuQ	Adult_lung_vecQ
pr76944.A.T8	Testis_vec8	pr85188.A.AHP	Heart_vecP
pr76944.A.T10	Testis_vec10	pr85189.A.AHR	Heart_vecR
pr76958.A.T1	Testis_vec1	pr85189.A.T4	Testis_vec4
pr76959.A.AH6	Heart_vec6	pr85189.S.AHR	Heart_vecR
pr76959.A.FB1	Fetal_brain_vec1	pr85189.S.ALuY	Adult_lung_vecY
pr76959.A.T3	Testis_vec3	pr85189.S.T4.500	Testis_vec4
pr76959.S.AH6	Heart_vec6	pr85189.S.T4.1700	Testis_vec4
pr76959.S.FB1	Fetal_brain_vec1	pr85195.A.T7	Testis_vec7
pr76960.A.FLJ.500	Fetal_liver_vecJ	pr85195.A.T8	Testis_vec8
pr76960.A.FLJ.700	Fetal_liver_vecJ	pr85195.S.T6	Testis_vec6
pr76960.A.FLuK	Fetal_lung_vecK	pr85195.S.T7	Testis_vec7
pr76960.A.T7	Testis_vec7	pr85195.S.T10	Testis_vec10
pr76960.S.FLJ	Fetal_liver_vecJ	pr85196.A.AHA	Heart_vecA
pr76960.S.FLuK	Fetal_lung_vecK	pr85196.A.T4	Testis_vec4
pr76963.A.AH1	Heart_vec1	pr85196.S.AHA	Heart_vecA
pr76963.A.T1	Testis_vec1	pr85196.S.ALuV	Adult_lung_vecV
pr76963.S.T3	Testis_vec3	pr85196.S.T4	Testis_vec4
pr76966.S.FB3	Fetal_brain_vec3	pr85196.S.T6	Testis_vec6
pr76967.A.T4	Testis_vec4	pr85196.S.T7	Testis_vec7
pr76967.S.T4	Testis_vec4	pr85196.S.T8	Testis_vec8
pr76968.A.AH7	Heart_vec7	pr85196.S.T9	Testis_vec9
pr76969.A.AH4	Heart_vec4	pr85196.S.T10	Testis_vec10
pr76970.A.T6.500	Testis_vec6	pr85206.A.T5.800	Testis_vec5
pr76970.A.T6.600	Testis_vec6	pr85206.A.T5.1300	Testis_vec5
pr76970.S.T6	Testis_vec6	pr85206.A.T6	Testis_vec6
pr76979.A.T2	Testis_vec2	pr85206.S.Alu.Q	Adult_lung_vecQ
pr76979.S.FLB	Fetal_liver_vecB	pr85206.S.T3	Testis_vec3
pr76979.S.T5	Testis_vec5	pr85206.S.T5	Testis_vec5
pr76979.S.T6	Testis_vec6	pr85206.S.T6.300	Testis_vec6
pr76983.A.ALuT	Adult_lung_vecT	pr85206.S.T6.600	Testis_vec6
pr76983.A.FLB	Fetal_liver_vecB	pr85209.A.T5	Testis_vec5
pr76983.S.ALuT	Adult_lung_vecT	pr85209.S.T5	Testis_vec5
pr76983.S.FLB	Fetal_liver_vecB	pr85209.S.T10	Testis_vec10
pr85180.A.AHY	Heart_vecY	pr85214.S.R1	Marathon_Brain
pr85180.A.T2	Testis_vec2	pr85214.S.R2	Marathon_Brain
pr85180.S.AHY	Heart_vecY	pr85214.S.R3	Marathon_Brain
pr85181.A.AHK	Heart_vecK	pr85214.S.R4	Marathon_Brain

Probe	cDNA pool	Probe	cDNA pool
pr85214.S.R5	Marathon_Brain	pr85247.A.AH1.1500	Heart_vec1
pr85225.A.85180.S.T7	Testis_vec7	pr85247.A.AH2.700	Heart_vec2
pr85225.S.AHY.300	Heart_vecY	pr85247.A.AH2.1500	Heart_vec2
pr85225.S.AHY.400	Heart_vecY	pr85247.S.AH1	Heart_vec1
pr85225.S.T2	Testis_vec2	pr85247.S.AH2	Heart_vec2
pr85225.S.T4	Testis_vec4	pr92808.A.R	Marathon_Brain
pr85225.S.T8.150	Testis_vec8	pr92810.A.R	Marathon_Brain
pr85225.S.T8.200	Testis_vec8	pr92811.A.R	Marathon_Testis
pr85225.S.T10	Testis_vec10	pr92811.A.R2	Marathon_Testis
pr85228.A.FBF	Fetal_brain_vecF	pr92816.A.R	Marathon_Brain
pr85228.A.FBO	Fetal_brain_vecO	pr92816.A.R2	Marathon_Brain
pr85228.A.T10	Testis_vec10	pr92824.A.R	Marathon_Testis
pr85241.S.T5.400	Testis_vec5	pr92824.A.R2	Marathon_Testis
pr85241.S.T5.600	Testis_vec5	pr92824.A.R3	Marathon_Testis
pr85241.S.T5.2000	Testis_vec5	pr92824.A.R4	Marathon_Testis
pr85241.S.T10	Testis_vec10	pr92828.A.R	Marathon_Testis
pr85242.A.T5	Testis_vec5	pr92828.A.R2	Marathon_Testis
pr85242.A.T10	Testis_vec10	pr92828.A.R3	Marathon_Testis
pr85242.S.R	Marathon_Brain	pr92829.A.R	Marathon_Testis
pr85242.S.T5	Testis_vec5	pr92830.A.R	Marathon_Testis
pr85247.A.AH1.1000	Heart_vec1	pr92830.A.R2	Marathon_Testis

Appendix 4: The 508 cDNA sequences generated during the gene identification effort. Column one lists the sequence identification numbers whereas the EMBL accession numbers (where available) are listed in column two. An example of EST submission is also shown.

Sequence ID	EMBL
sccd1013.64573S	
sccd1014.1rp	
sccd1014.64573A	
sccd1015.1rp	
sccd1015.64573A	
sccd1016.1rp	
sccd1016.64573A	
sccd1017.66868A	AL449719
sccd1018.66869S	AL449720
sccd1019.66869A	AL449721
sccd1019.t7.2fp	AL449722
sccd1020.66872	AL449723
sccd1020.t7.2fp	AL449724
sccd1021.1rp	
sccd1021.66870S	
sccd1022.66870S	
sccd1023.2fp	
sccd1023.66870A	
sccd1024.66870A	
sccd1025.66870A	
sccd1025.t7.2fp	
sccd1026.66870A	
sccd1026.t7.2fp	
sccd1282.66877S	
sccd1283.224	
sccd1283.66877A	
sccd1284.224	
sccd1285.224	
sccd1286.224	AL449504
sccd1286.66875S	AL449505
sccd1287.66875A	AL449506
sccd1288.224	AL449725
sccd1288.66874A	AL449726
sccd1289.224	
sccd1289.66875S	
sccd1290.224	
sccd1290.66875A	
sccd1291.224	
sccd1291.71391A	
sccd1292.224	
sccd1294.71394S	
sccd1295.224	
sccd1295.71394A	
sccd1296.224	
sccd1296.71396S	

Sequence ID	EMBL
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sccd1298.224	
sccd1298.71397A	
sccd1299.224	
sccd1299.66877S	
sccd1300.224	
sccd1300.66877A	
sccd1302.224	
sccd1302.63375S	
sccd1304.63423A	
sccd1305.224	
sccd1305.63611S	
sccd1306.224	
sccd1306.63646S	
sccd1307.224	
sccd1307.63646A	
sccd1309.224	
sccd1309.65059A	
sccd1314	AL449507
sccd1315	AL449508
sccd1318	AL449509
sccd1319	AL449510
sccd1320	AL449511
sccd1321	AL449512
sccd1322	AL449513
sccd1323	AL449514
sccd1324	AL449515
sccd1325	AL449516
sccd1328	
sccd1329	
sccd1336	AL449886
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sccd1339	AL449888
sccd1340	AL449889
sccd1341	AL449890
sccd1342	AL449891
sccd1343	AL449892
sccd1350	AL449517
sccd1352	AL449518
sccd1353	AL449519
sccd1354	AL449520
sccd1355	AL449521
sccd1356	AL449667
sccd1363	AL449668

Sequence ID	EMBL
sccd1364	AL449669
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sccd1368	AL449522
sccd1369	AL449523
sccd1370	AL449524
sccd1373	AL449525
sccd1378	AL449727
sccd1379	AL449728
sccd1380	AL449729
sccd1381	AL449730
sccd1382	AL449526
sccd1383	AL449527
sccd1384	AL449528
sccd1386	AL449529
sccd1387	AL449530
sccd1390	AL449731
sccd1391	AL449732
sccd1392	AL449733
sccd1393	AL449734
sccd1394	AL449735
sccd1395	AL449736
sccd1396	AL449737
sccd1397	AL449738
sccd1399	AL449893
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sccd1406	AL449740
sccd1407	AL449741
sccd1408	AL449531
sccd1409	AL449532
sccd1413	AL449672
sccd1414	AL449894
sccd1415	AL449895
sccd1416	AL449673
sccd1417	AL449674
sccd1420	AL449533
sccd1421	AL449534
sccd1427	AL449675
sccd1429	AL449676
sccd1433	AL449742
sccd1438	AL449743
sccd1439	AL449744
sccd1440	AL449896
sccd1441	AL449897
sccd1443	AL449535

Sequence ID	EMBL	Sequence ID	EMBL	Sequence ID	EMBL
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sccd1447	AL449748	sccd3126	AL449550	sccd3197	AL449567
sccd1455	AL449677	sccd3127	AL449551	sccd3198	AL449827
sccd1457	AL449678	sccd3128	AL449755	sccd3199	AL449828
sccd1467	AL449679	sccd3129	AL449756	sccd3200	AL449829
sccd1468	AL449749	sccd3130	AL449757	sccd3201	AL449830
sccd1469	AL449750	sccd3131	AL449758	sccd3202	AL449568
sccd1470	AL449898	sccd3132	AL449759	sccd3203	AL449569
sccd1471	AL449899	sccd3133	AL449760	sccd3204	AL449682
sccd1473	AL449536	sccd3138	AL449761	sccd3205	AL449683
sccd3070	AL449537	sccd3139	AL449762	sccd3208	AL449831
sccd3071	AL449538	sccd3140	AL449763	sccd3209	AL449832
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An example of an EMBL submitted cDNA sequence

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XX
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OC   Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RP   1-232
RA   Stavrides G.S., Huckle E.J., Deloukas P.;
RT   ;
RL   Submitted (08-NOV-2000) to the EMBL/GenBank/DDBJ databases.
RL   The Sanger Centre, Wellcome Trust Genome Campus, Hinxton, Cambridgeshire,
RL   CB10 1SA, UK. E-mail contact: humquery@sanger.ac.uk Unpublished
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17 mRNA sequences constructed in silico using overlapping In_house generated cDNA sequences and publicly available ESTs were also submitted to EMBL (Accession numbers: AL133001, AL132998, AL591562, AL591713, AL121742, AL591714, AL591565, AL591715, AL118493, AL096778, AL118494, AL121740, AL133002, AL133000, AL132999, AL121739, AL137188).

Appendix 5: Gene data.

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
dJ191L6.1	Pseudogene	238			1	Similar to src-like proto-oncogene
dJ191L6.2	Putative	5,317	191L6.2.mRNA	426	3	
KRML	Known	3,049	644L1.1.mRNA	3,049	1	Kreisler maf-related leucine zipper homolog
TOP1	Known	95,622	1J6.1.mRNA	3,690	21	Topoisomerase I
PLCG1	Known	38,146	511B24.2.1.mRNA	5,151	32	Phospholipase C, gamma 1
TIX1	Novel	26,726	511B24.3.mRNA	9,871	2	Probable homeobox protein
dJ511B24.4	Pseudogene	463			1	60S Ribosomal Protein L23A (RPL23A) pseudogene
dJ450M14.1	Pseudogene	2,079			3	
LPIN3	Novel	13,063	620E11.2.mRNA	2,190	17	Protein similar to KIAA0188, KIAA0249 and yeast SMP2
C20orf130	Novel	6,761	620E11.4.mRNA	3,679	4	
KIAA1335	Novel	216,269	620E11.1.mRNA	10,964	37	Helicase C-terminaland SNF2 N-terminal domains containing protein
dJ620E11.3	Pseudogene	2,590			2	Similar to LY6
RPL12L2	Pseudogene	612			1	Similar to RPL12 (ribosomal protein L12)
dJ1121H13.1	Pseudogene	2,846			1	Similar to intermediate filament proteins
dJ1121H13.3	Putative	1,445	1121H13.3.mRNA	417	3	
PTPRT	Known	1,117,219	269M15.2.mRNA	12,708	31	Protein tyrosine phosphatase, receptor type T
dJ730D4.1	Pseudogene	866			2	
PPIAL	Pseudogene	494			1	Similar to peptidylprolyl isomerase (cyclophilin)
dJ862K6.4	Pseudogene	319			1	Similar to part of NBP (Nucleotide Binding Protein)

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
dJ862K6.3	Pseudogene	346			1	Similar to 4E-BP2 (4E-Binding Protein 2)
SFRS6	Known	5,678	862K6.2.2.mRNA	3,951	7	Splicing factor, arginine/serine-rich 6
KIAA0681	Known	27,552	862K6.1.1.mRNA	3,286	19	Lethal (3) malignant brain tumor (l(3)mbt)
dJ138B7.4	Pseudogene	312			1	HSPC194 pseudogene
SGK2	Novel	26,582	138B7.2.1.mRNA	1,852	13	Serum/glucocorticoid regulated kinase 2
C20orf9	Novel	56,233	138B7.1.1.mRNA	1,624	14	CGI-53 protein
RPL27AP	Pseudogene	833			2	Similar to RPL27A
MYBL2	Known	49,340	1028D15.3.mRNA	2,639	14	V-myb avian myeloblastosis viral oncogene homolog-like 2
C20orf65	Novel	577	1028D15.4.mRNA	577	1	
C20orf100	Novel	110,874	1108D11.2.mRNA	1,296	7	Novel HMG (high mobility group) box protein
JPH2	Novel	73,752	1183I21.2.1.mRNA	2,655	6	Novel protein similar to C. elegans T22C1.7
C20orf111	Novel	14,296	1183I21.1.1.mRNA	1,572	4	
dJ995J12.2	Putative	13,697	995J12.2.mRNA	665	4	
GDAP1L1	Novel	33,182	995J12.1.1.mRNA	2,320	6	Similar to mouse ganglioside-induced differentiation associated protein
C20orf142	Novel	4,894	881L22.2.mRNA	1,159	2	
R3HDML	Novel	13,635	881L22.3.mRNA	762	5	Similar to trypsin inhibitors
dJ881L22.5	Putative	7,634	881L22.5.mRNA	754	4	
dJ881L22.4	Putative	17,964	881L22.4.1.mRNA	648	4	
HNF4A	Known	29,128	1013A22.1.mRNA	2,260	10	Hepatocyte nuclear factor 4, alpha
dJ1013A22.2	Putative	1,301	1013A22.2.mRNA	396	2	
C20orf62	Putative	377	1013A22.3.mRNA	377	3	
dJ1013A22.4	Pseudogene	279			1	RPL37A (ribosomal protein L37a) pseudogene
C20orf121	Novel	14,164	179M20.3.mRNA	1,681	6	Similar to cellular retinaldehyde-binding protein
TDE1	Known	24,589	179M20.2.1.mRNA	4,355	10	Tumour differentially expressed 1(DIFF33)
PKIG	Known	87,107	179M20.4.1.mRNA	1,045	4	Protein kinase (cAMP-dependent, catalytic)

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
						Inhibitor gamma
ADA	Known	32,180	179M20.1.mRNA	1,498	12	Adenosine deaminase
bA445H22.3	Putative	6,837	445H22.3.mRNA	790	4	
dJ781B1.4	Putative	34,161	445H22.4.mRNA	529	5	
WISP2	Known	12,626	445H22.2.mRNA	1,462	4	WNT1 inducible signaling pathway protein 2
KCNK15	Known	5,246	781B1.1.mRNA	1,311	2	Two pore potassium channel KT3.3
dJ781B1.2	Putative	3,268	781B1.2.mRNA	465	2	
C20orf190	Novel	54,606	781B1.3.mRNA	1,281	6	Similar to myeloblast KIAA0237 protein and rat protein NIM2
YWHAB	Known	22,808	148E22.1.1.mRNA	3,095	7	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, beta polypeptide
C20orf119	Novel	29,223	148E22.2.mRNA	2,017	14	Similar to poly(A)-binding protein
TOMM34	Known	18,303	1069P2.2.mRNA	2,008	7	Translocase of outer mitochondrial membrane 34 (TOM34)
STK4	Known	109,027	211D12.2.mRNA	1,883	11	Serine/threonine kinase 4
dJ211D12.3	Putative	2,142	211D12.3.mRNA	1,508	2	
KCNS1	Known	8,802	211D12.1.mRNA	4,537	5	Potassium voltage-gated channel, delayed-rectifier, subfamily S, member 1
PRG5	Known	5,711	211D12.5.mRNA	1,034	4	p53-responsive gene 5
C20orf122	Known	1,104	211D12.4.mRNA	838	3	Similar to Elafin-like protein
PI3	Known	1,570	172H20.3.mRNA	478	3	Protease inhibitor 3, skin-derived (SKALP)
SEMG1	Known	2,734	172H20.2.mRNA	1,620	3	Semenogelin I
SEMG2	Known	3,068	172H20.1.mRNA	1,920	3	Semenogelin II
dJ300I2.1	Putative	476	300I2.1.mRNA	227	2	
SLPI	Known	2,323	300I2.2.mRNA	593	4	Secretory leukocyte protease inhibitor
MATN4	Known	12,138	453C12.1.2.mRNA	2,182	10	Matrilin 4

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
RBPSUHL	Known	10,117	453C12.2.mRNA	1,739	11	Recombining binding protein suppressor of hairless-like
SDC4	Known	23,137	453C12.3.mRNA	2,613	5	Syndecan 4 (amphiglycan, ryudocan)
C20orf169	Novel	6,058	453C12.4.1.mRNA	2,684	4	Similar to Drosophila CG11753
C20orf10	Novel	4,508	453C12.5.mRNA	1,051	5	clg01 (p53 response element)
dJ453C12.8	Pseudogene	359			1	NADH-ubiquinone oxidoreductase B15 subunit pseudogene
C20orf35	Novel	4,388	453C12.6.1.mRNA	1,479	4	Uncharacterized hypothalamus protein (HSMNP1)
PIGT	Novel	10,081	453C12.7.1.mRNA	2,148	12	Phosphatidyl inositol glycan class T
dJ461P17.10	Putative	945	461P17.10.mRNA	518	2	
WFDC2	Known	11,777	461P17.6.mRNA	564	4	Major epididymis-specific protein E4 precursor
dJ461P17.9	Putative	2,597	461P17.9.mRNA	316	2	
dJ461P17.5	Pseudogene	854			1	RPL5 (60S Ribosomal Protein L5) pseudogene
SPINT3	Known	384	461P17.8.mRNA	384	1	Serine protease inhibitor, Kunitz type, 3
C20orf171	Novel	4,251	461P17.11.mRNA	395	3	Contains a WAP-type (Whey Acidic Protein) "four-disulfide core" domain and a Kunitz/Bovine pancreatic trypsin inhibitor domain
dJ461P17.4	Pseudogene	219			1	COX6C pseudogene
SPINLW1	Novel	6,756	461P17.2.1.mRNA	1,944	4	Contains a WAP-type (Whey Acidic Protein) "four-disulfide core" domain and a Kunitz/Bovine pancreatic trypsin inhibitor domain
dJ461P17.3	Pseudogene	245			1	Similar to part of the HSPD1
C20orf170	Novel	27,538	461P17.1.mRNA	1,042	6	Contains a WAP-type (Whey Acidic Protein) "four-disulfide core" domain and Kunitz/Bovine

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
						pancreatic trypsin inhibitor domains
dJ839B11.2	Pseudogene	818			1	Enhancer of invasion 10 (HEI10) pseudogene
dJ688G8.2	Putative	6,740	688G8.2.mRNA	550	4	
C20orf146	Novel	1,370	688G8.3.mRNA	405	2	Weakly similar to basic protease inhibitor chelonianin
RPS2L1	Pseudogene	882			1	Similar to ribosomal protein S2 (RPS2)
dJ688G8.4	Putative	20,083	688G8.4.mRNA	371	2	
C20orf137	Novel	3,480	601O1.1.mRNA	512	3	Contains a WAP-type (Whey Acidic Protein) "four-disulfide core" domain and a Kunitz/Bovine pancreatic trypsin inhibitor domain
dJ447F3.1	Pseudogene	465			1	Pseudogene
C20orf168	Novel	154	447F3.6.mRNA	154	1	Contains a Kunitz/Bovine pancreatic trypsin inhibitor domain
WFDC3	Novel	16,733	447F3.3.1.mRNA	897	7	Contains WAP-type (Whey Acidic Protein) "four-disulfide core" domains
C20orf167	Novel	19,483	447F3.4.1.mRNA	1,282	13	Similar to synaptotagmin 1
UBE2C	Known	4,294	447F3.2.1.mRNA	762	6	Ubiquitin-conjugating enzyme E2 H10
TNNC2	Known	10,531	447F3.5.2.mRNA	779	7	Fast troponin C2
C20orf161	Novel	7,872	337O18.4.mRNA	1,597	4	
PTE1	Known	15,663	337O18.3.1.mRNA	1,145	6	Peroxisomal acyl-CoA thioesterase
C20orf164	Novel	21,302	337O18.7.mRNA	2,569	2	
C20orf162	Novel	3,071	337O18.5.1.mRNA	1,492	3	
C20orf165	Novel	1,147	337O18.8.mRNA	757	2	
C20orf163	Novel	2,367	337O18.6.mRNA	991	2	
PPGB	Known	8,355	337O18.2.2.mRNA	2,082	15	Lysosomal protective protein precursor
PLTP	Known	13,388	337O18.1.1.mRNA	1,743	16	Lipid transfer protein II

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
C20orf67	Novel	13,396	465L10.1.mRNA	2,747	17	
ZNF335	Novel	23,520	465L10.2.mRNA	4,430	28	C2H2 type zinc finger protein similar to chicken FZF-1
bA465L10.3	Pseudogene	827			2	Ferritin light polypeptide (FTL) pseudogene
MMP9	Known	7,654	465L10.4.mRNA	2,336	13	Matrix metalloproteinase 9
bA465L10.7	Putative	6,024	465L10.7.mRNA	248	2	
SLC12A5	Novel	30,904	465L10.5.mRNA	5,994	26	Solute carrier family 12, member 5
NCOA5	Novel	28,909	599F21.1.mRNA	3,161	8	Nuclear receptor coactivator 5
dJ599F21.2	Pseudogene	659			1	RPL13 (60S ribosomal protein L13) pseudogene
TNFRSF5	Known	11,592	599F21.3.mRNA	1,729	9	Tumor necrosis factor receptor superfamily, member 5
C20orf25	Novel	77,957	998H6.1.mRNA	3,655	11	Similar to rat PB-Cadherin
C20orf5	Novel	14,858	394O2.1.mRNA	2,236	10	
KIAA1834	Novel	40,561	394O2.2.2.mRNA	3,569	21	Similar to KIAA0281
dJ981L23.1	Pseudogene	1,319			1	Zinc-finger protein pseudogene
dJ981L23.2	Pseudogene	1,262			1	Makorin (MKRN1 or MKRN3) ring finger protein pseudogene
C20orf157	Novel	635	981L23.3.mRNA	223	2	Novel KRAB box type zinc-finger protein
ZNF334	Novel	12,463	179N14.1.mRNA	2,430	5	Zinc finger protein
C20orf123	Novel	5,384	257E24.3.mRNA	1,985	2	
SLC13A3	Known	93,608	257E24.2.1.mRNA	4,017	13	Sodium-dependent high-affinity dicarboxylate transporter
C20orf64	Novel	3,132	28H20.2.mRNA	1,231	2	
SLC2A10	Novel	26,598	28H20.1.mRNA	4,126	5	Solute carrier family 2 (facilitated glucose transporter), member 10
bA323C15.1	Pseudogene	549			1	RPL13 (60S ribosomal protein L13) pseudogene
EYA2	Known	294,206	1050K3.1.mRNA	2,687	16	Eyes absent (Drosophila) homolog 2

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
bA323C15.2	Putative	584	323C15.2.mRNA	423	2	
dJ1050K3.2	Pseudogene	1,008			1	GAPDH pseudogene
dJ1050K3.3	Pseudogene	278			1	RPL27A (60S ribosomal protein L27A) pseudogene
dJ890O15.3	Pseudogene	863			1	RPS2 (40S ribosomal protein S2) pseudogene
PRKCBP1	Known	147,134	890O15.2.mRNA	4,536	22	Protein kinase C binding protein 1
dJ569M23.2	Putative	677	569M23.2.mRNA	413	2	
bA456N23.1	Pseudogene	797			2	RPL35A (60S ribosomal protein L35a) pseudogene
NCOA3	Known	153,863	1049G16.2.1.mRNA	6,838	23	Nuclear receptor coactivator 3
dJ1049G16.3	Pseudogene	1,173			2	RPS3A pseudogene
KIAA1247	Novel	100,060	1049G16.1.1.mRNA	3,671	20	Similar to glucosamine-6-sulfatases
dJ1057D4.1	Pseudogene	885			1	Spermidine synthase pseudogene
bA347D21.1	Putative	1,257	347D21.1.mRNA	425	2	
bA347D21.2	Putative	582	347D21.2.mRNA	456	2	
bA347D21.4	Putative	910	347D21.4.mRNA	450	2	
bA347D21.3	Putative	8,257	347D21.3.mRNA	429	2	
dJ66N13.2	Putative	1,012	66N13.2.mRNA	551	2	
dJ66N13.3	Putative	893	66N13.3.mRNA	438	2	
dJ66N13.1	Putative	1,573	66N13.1.mRNA	404	2	
dJ991B18.1	Putative	30,225	991B18.1.mRNA	277	2	
KIAA1415	Novel	203,594	269H4.1.mRNA	6,499	40	
ARFGEF2	Known	114,804	155G6.1.mRNA	8,852	39	ADP-ribosylation factor guanine nucleotide-exchange factor 2
dJ155G6.3	Pseudogene	246			1	SNAP-25 pseudogene
dJ155G6.4	Putative	5,582	155G6.4.1.mRNA	556	3	
CSE1L	Known	50,641	470L14.1.1.mRNA	3,553	25	Chromosome segregation 1 (yeast homolog)-

Locus	Type	Genomic size (bp)	Largest transcript (bp)	Transcript size (bp)	Exon number	Comments
						like
STAU	Known	74,845	470L14.2.1.mRNA	3,500	14	Staufen (RNA binding protein)
ARPC3B	Pseudogene	800			1	Arp2/3 protein complex subunit p21-Arc (ARC21) pseudogene
DDX27	Novel	24,703	686N3.1.mRNA	2,615	21	Similar to ATP dependent RNA helicases (contains conserved C-terminal helicase domains and DEAD/DEAH boxes)
KIAA1404	Novel	32,166	686N3.2.1.mRNA	7,209	14	
dJ686N3.3	Putative	10,621	686N3.3.1.mRNA	546	5	
KCNB1	Known	110,681	791K14.1.mRNA	3,760	2	Potassium voltage-gated channel, Shab-related subfamily, member 1
PTGIS	Known	60,676	298O6.1.mRNA	1,982	10	Prostaglandin I2 (prostacyclin) synthase
B4GALT5	Known	80,857	1063B2.1.mRNA	4,645	9	beta-1,4-galactosyltransferase, polypeptide 5
dJ1041C10.2	Pseudogene	255			1	small nuclear ribonucleoprotein polypeptide F (SNRPF) pseudogene
KIAA0939	Novel	79,342	1041C10.4.1.mRNA	6,095	16	Novel member of sodium/hydrogen exchanger family
dJ1041C10.3	Pseudogene	2,017			1	
SPATA2	Known	12,118	963K23.3.mRNA	4,022	3	Spermatogenesis associated protein 2, PD1
ZNF313	Novel	17,482	963K23.2.mRNA	2,440	6	Zinc finger protein 313
dJ963K23.1	Pseudogene	1,288			1	KRT18 (Keratin type I, Cytoskeletal 18 (Cytokeratin 18, CK18,CYK18)) pseudogene
SNAI1	Known	5,888	710H13.1.mRNA	1,686	3	Snail 1 (drosophila homolog), zinc finger protein
dJ710H13.2	Putative	789	710H13.2.mRNA	462	2	
UBE2V1	Known	48,277	1185N5.1.4.mRNA	2,134	5	Ubiquitin-conjugating enzyme E2 variant 1

Appendix 6: Novel gene expression results and isolation of cDNA sequences.

Number of positive libraries	Testis	Fetal Brain	Fetal Liver	Fetal Lung	Peripheral Blood	Adult Heart	Adult Lung	Novel gene	Primer name (stSG)	Vectorette sequences	SSP-PCR Sequences	RACE sequences
5	+	+	+			+	+	TIX1	85209	+		+
2			+				+	LPIN3	76983	+		
3	+			+		+		C20orf130	85247	+		
6	+	+	+	+		+	+	KIAA1335	76922	+		
5	+		+	+	+	+		SGK2	85213			
2		+				+		C20orf9	92851			
3	+					+	+	C20orf65	92852			
7	+	+	+	+	+	+	+	C20orf100	85236			+
3				+		+	+	JPH2	85233	+		
7	+	+	+	+	+	+	+	C20orf111	76870	+		+
3	+	+					+	GDAP1L1	85215			
3		+			+	+		C20orf142	92853			
1						+		R3HDML	92854			
3	+	+	+					C20orf121	74159	+		+
2	+					+		C20orf190	92821			
3		+	+				+	C20orf119	76868	+		+
6	+	+	+	+		+	+	C20orf169	76914		+	+
1	+							C20orf10	76885	+		
6	+	+	+	+		+	+	C20orf35	76916		+	
7	+	+	+	+	+	+	+	PIGT	85271		+	+
NONE								C20orf171	102616			
1	+							SPINLW1	71392	+		+

Number of positive libraries	Testis	Fetal Brain	Fetal Liver	Fetal Lung	Peripheral Blood	Adult Heart	Adult Lung	Novel gene	Primer name (stSG)	Vectorette sequences	SSP-PCR Sequences	RACE sequences
1	+							C20orf170	71409	+		
1	+							C20orf146	92886			
NONE								C20orf137	92887			
1					+			C20orf168	102618			
2	+	+						WFDC3	85219	+		
1	+							C20orf167	85218			
3	+					+	+	C20orf161	85239			
4	+	+		+		+		C20orf164	102619			
6	+	+	+	+		+	+	C20orf162	85223	+		
NONE								C20orf165	102623			
5	+		+	+	+		+	C20orf163	85221			
7	+	+	+	+	+	+	+	C20orf67	92861			
7	+	+	+	+	+	+	+	ZNF335	92862	+		+
1		+						SLC12A5	92863			
5	+	+		+		+	+	NCOA5	92864			
1		+						C20orf25	76944			
7	+	+	+	+	+	+	+	C20orf5	92866			
7	+	+	+	+	+	+	+	KIAA1834	92867			
NONE								C20orf157	102625			
4	+	+	+			+		ZNF334	92868			
NONE								C20orf123	102628			
7	+	+	+	+	+	+	+	C20orf64	76871	+		+
3		+	+				+	SLC2A10	76895	+		+
7	+	+	+	+	+	+	+	KIAA1247	71396	+		+

Number of positive libraries	Testis	Fetal Brain	Fetal Liver	Fetal Lung	Peripheral Blood	Adult Heart	Adult Lung	Novel gene	Primer name (stSG)	Vectorette sequences	SSP-PCR Sequences	RACE sequences
5	+	+	+		+		+	KIAA1415	85185			
7	+	+	+	+	+	+	+	DDX27	85225	+		+
7	+	+	+	+	+	+	+	KIAA1404	85226	+		
3	+					+	+	KIAA0939	92871			
7	+	+	+	+	+	+	+	ZNF313	76931	+		+

Appendix 7: Putative gene expression results.

Number of positive libraries	Testis	Fetal Brain	Fetal Liver	Fetal Lung	Peripheral Blood	Adult Heart	Adult Lung	Putative gene	Primer name (stSG)
2	+				+			dJ191L6.2	92807
NONE								dJ1121H13.3	102607
6	+	+	+	+		+	+	dJ995J12.2	92882
1	+							dJ881L22.5	92855
2	+		+					dJ881L22.4	92856
1	+							dJ1013A22.2	92857
1	+							C20orf62	92858
1	+							bA445H22.3	102664
NONE								dJ781B1.4	102613
1	+							dJ781B1.2	92860
7	+	+	+	+	+	+	+	dJ211D12.3	102614
3			+			+	+	dJ300I2.1	85188
1				+				dJ461P17.10	92884
NONE								dJ461P17.9	92883
3	+		+				+	dJ688G8.2	92885
5	+	+	+		+	+		dJ688G8.4	85217
1		+						bA465L10.7	92865
1							+	bA323C15.2	92869
1			+					dJ569M23.2	102629
2		+					+	bA347D21.1	92872
1					+			bA347D21.2	92873
NONE								bA347D21.3	92874
NONE								bA347D21.4	92875
NONE								dJ66N13.1	92870
3			+	+	+			dJ66N13.2	102649
NONE								dJ66N13.3	102650
2	+				+			dJ991B18.1	92888
1	+							dJ155G6.4	102651
7	+	+	+	+	+	+	+	dJ686N3.3	85227
1					+			dJ710H13.2	92889

Appendix 8: Supporting evidence for annotation.

Gene name	Type	Identical cDNA(s)	Identical EST(s)	Similar to Protein(s)/Predicted protein(s)
dJ191L6.1	Pseudogene			+
dJ191L6.2	Putative		+	
KRML	Known	+	+	+
TOP1	Known	+	+	+
PLCG1	Known	+	+	+
TIX1	Novel	+	+	+
dJ511B24.4	Pseudogene			+
dJ450M14.1	Pseudogene			+
LPIN3	Novel	+	+	+
C20orf130	Novel	+	+	+
dJ620E11.3	Pseudogene			+
KIAA1335	Novel	+	+	+
RPL12L2	Pseudogene			+
dJ1121H13.1	Pseudogene			+
dJ1121H13.3	Putative		+	
PTPRT	Known	+	+	+
dJ730D4.1	Pseudogene			+
PPIAL	Pseudogene			+
dJ862K6.4	Pseudogene			+
dJ862K6.3	Pseudogene			+
SFRS6	Known	+	+	+
KIAA0681	Known	+	+	+
dJ138B7.4	Pseudogene			+
SGK2	Novel	+	+	+
C20orf9	Novel	+	+	+
RPL27AP	Pseudogene			+
MYBL2	Known	+	+	+
C20orf65	Novel		+	+
C20orf100	Novel	+	+	+
JPH2	Novel	+	+	+
C20orf111	Novel	+	+	+
dJ995J12.2	Putative		+	
GDAP1L1	Novel	+	+	+
C20orf142	Novel		+	+
R3HDML	Novel		+	+
dJ881L22.5	Putative		+	
dJ881L22.4	Putative	+	+	
HNF4A	Known	+	+	+
dJ1013A22.2	Putative		+	
C20orf62	Putative		+	
dJ1013A22.4	Pseudogene			+
C20orf121	Novel		+	+
TDE1	Known	+	+	+
PKIG	Known	+	+	+

Gene name	Type	Identical cDNA(s)	Identical EST(s)	Similar to Protein(s)/Predicted protein(s)
ADA	Known	+	+	+
WISP2	Known	+	+	+
bA445H22.3	Putative	+	+	
dJ781B1.4	Putative		+	
KCNK15	Known	+	+	+
dJ781B1.2	Putative		+	
C20orf190	Novel	+	+	+
YWHAB	Known	+	+	+
C20orf119	Novel	+	+	+
TOMM34	Known	+	+	+
STK4	Known	+	+	+
KCNS1	Known	+	+	+
dJ211D12.3	Putative	+	+	
PRG5	Known	+	+	+
C20orf122	Known	+	+	+
PI3	Known	+	+	+
SEMG1	Known	+	+	+
SEMG2	Known	+	+	+
dJ300I2.1	Putative		+	
SLPI	Known	+	+	+
MATN4	Known	+	+	+
RBPSUHL	Known	+		+
SDC4	Known	+	+	+
C20orf169	Novel	+	+	+
C20orf10	Novel	+	+	+
dJ453C12.8	Pseudogene			+
C20orf35	Novel	+	+	+
PIGT	Novel	+	+	+
dJ461P17.10	Putative		+	
WFDC2	Known	+	+	+
dJ461P17.9	Putative		+	
dJ461P17.5	Pseudogene			+
SPINT3	Known		+	+
C20orf171	Novel			+
dJ461P17.4	Pseudogene			+
dJ461P17.3	Pseudogene			+
SPINLW1	Novel	+	+	+
C20orf170	Novel		+	+
dJ839B11.2	Pseudogene			+
dJ688G8.2	Putative		+	
C20orf146	Novel		+	+
RPS2L1	Pseudogene			+
dJ688G8.4	Putative		+	
C20orf137	Novel		+	+
dJ447F3.1	Pseudogene			+
C20orf168	Novel			+

Gene name	Type	Identical cDNA(s)	Identical EST(s)	Similar to Protein(s)/Predicted protein(s)
WFDC3	Novel	+	+	+
C20orf167	Novel	+	+	+
UBE2C	Known	+	+	+
TNNC2	Known	+	+	+
C20orf161	Novel	+	+	+
PTE1	Known	+	+	+
C20orf164	Novel		+	
C20orf162	Novel	+	+	+
C20orf165	Novel		+	
C20orf163	Novel		+	+
PPGB	Known	+	+	+
PLTP	Known	+	+	+
C20orf67	Novel	+	+	+
ZNF335	Novel	+	+	+
bA465L10.3	Pseudogene			+
MMP9	Known	+	+	+
bA465L10.7	Putative		+	
SLC12A5	Novel	+	+	+
NCOA5	Novel	+	+	+
dJ599F21.2	Pseudogene			+
TNFRSF5	Known	+	+	+
C20orf25	Novel	+	+	+
C20orf5	Novel	+	+	+
KIAA1834	Novel	+	+	+
dJ981L23.1	Pseudogene			+
dJ981L23.2	Pseudogene			+
C20orf157	Novel			+
ZNF334	Novel	+	+	+
C20orf123	Novel		+	+
SLC13A3	Known	+	+	+
C20orf64	Novel	+	+	+
SLC2A10	Novel	+	+	+
bA323C15.1	Pseudogene			+
bA323C15.2	Putative		+	
dJ1050K3.3	Pseudogene			+
dJ1050K3.2	Pseudogene			+
EYA2	Known	+	+	+
dJ890O15.3	Pseudogene			+
PRKCBP1	Known	+	+	+
dJ569M23.2	Putative		+	
bA456N23.1	Pseudogene			+
NCOA3	Known	+	+	+
KIAA1247	Novel	+	+	+
dJ1049G16.3	Pseudogene			+
dJ1057D4.1	Pseudogene			+
bA347D21.1	Putative		+	

Gene name	Type	Identical cDNA(s)	Identical EST(s)	Similar to Protein(s)/Predicted protein(s)
bA347D21.2	Putative		+	
bA347D21.3	Putative		+	
bA347D21.4	Putative		+	
dJ66N13.1	Putative		+	
dJ66N13.2	Putative		+	
dJ66N13.3	Putative		+	
dJ991B18.1	Putative		+	
KIAA1415	Novel	+	+	+
ARFGEF2	Known	+	+	+
dJ155G6.3	Pseudogene			+
dJ155G6.4	Putative		+	
CSE1L	Known	+	+	+
STAU	Known	+	+	+
ARPC3B	Pseudogene			+
DDX27	Novel	+	+	+
KIAA1404	Novel	+	+	+
dJ686N3.3	Putative		+	
KCNB1	Known	+	+	+
PTGIS	Known	+	+	+
B4GALT5	Known	+	+	+
dJ1041C10.2	Pseudogene			+
dJ1041C10.3	Pseudogene			+
KIAA0939	Novel	+	+	+
SPATA2	Known	+	+	+
ZNF313	Novel	+	+	+
dJ963K23.1	Pseudogene			+
SNAI1	Known	+	+	+
dJ710H13.2	Putative		+	
UBE2V1	Known	+	+	+

Appendix 9: The sequences of gene-based, working STSs.

stSG number	Mouse sequence accession number	Status	Sense primer	Antisense primer	Product length (bp)
stSG77001	AA986794	EST	CAGTGGTGGGGATATCCTTG	ACACGTTTCTACCCACAGCA	400
stSG77002	X70958	EST	AAGGTACGTGCGGATCAAAC	CTCTCTGCTTCTGCCTTGCT	222
stSG77003	D10061	mRNA	TAGAGAGCGGATTGCCAACT	TCCTCAGGCATGATCCTTCT	105
stSG77004	D10061	mRNA	CAGGGGTTCTGTGAAAAGGA	CAAATTCCCATCCACTTGCT	268
stSG77005	AA215096	EST	CCACCTAGTTGGAGAGCAGC	AGGGAGGCCCAAAACAATAC	174
stSG77006	AI427671	EST	ATTGGAGTCTTTGAGCCCCT	AGCCAGGCAGTGATCAGAAC	101
stSG77008	AF152556	mRNA	TGCCAACCTTGAAGGAGAAT	CTCAGTGACGACGCCAGATA	158
stSG77009	AF152556	mRNA	GTGCCACCTACCTGTGGATT	CAGCACCCGGATCTCATACT	182
stSG77010	AF152556	mRNA	CTGCCACAGCTACAACCTCA	CCACCAACTCCTCACTCTCC	185
stSG77011	AF152556	mRNA	CTCCAACCTCGATTCGCTAC	GCTGTAGCTCTTCAATGGGG	142
stSG77012	AF152556	mRNA	CTAACACTGTGGAGCCGGAG	ATCACCCCCAGGAGAATGA	100
stSG77013	AF152556	mRNA	AAAGGCCACCATGAGATCC	TGGGGGATTGAGAAACTTGA	126
stSG77014	AI060744	EST	GGCAGGAAATCCAGATCAAA	TGTCTCCTTTGCCGTTCTCT	148
stSG77015	W89632	EST	GAGGAGCAGTGAGAACCCAG	GCTTCTGTGCTTAAGCTGGC	118
stSG77016	U58941	mRNA	CTAGGCTTGTCACAGGCTCC	TTTATAAGTCTGGGCCTCCG	134
stSG77017	J05261	mRNA	TGGCGGAGAACAATTATGAA	TCCTGCATGACCAGTACAGC	136
stSG77018	AA530750	EST	CCATGTCTGCCATCTCCTTT	GTGGCCCAAAAACTGTTCAA	101
stSG77019	AB019618	mRNA	GGGACCATCTTCCTGATTGA	CGTGGTTCACTGTCGTTGAT	182
stSG77020	AB019618	mRNA	ATTGATCGGGACTCGGATTT	CAGTAATGTTGTGCCAGCCA	112
stSG77021	AA756018	EST	CGGTGACTGTTCGGGATTAT	ATGTTGGAGGTGGTGAGGTC	148
stSG77022	AA461907	EST	TGGACCTTCCTGCTCTATGG	TGTCTGAAACTGCTGCTCTATTTC	114
stSG77023	M10319	mRNA	GAGGATCGCCTACGAGTTTG	AGTCTGGTTCCAGGGCATT	121
stSG77024	L29441	mRNA	CCTCTGGACTCTTGTGGCTC	TTGATGAAACGCAAAATGGA	132
stSG77025	AF058797	mRNA	GAGCAGGGACACGAACTCTC	TCTGTTCGATGCTGGAGATG	112
stSG77026	AI322317	EST	GTGCACGTAAGGCAGATCAC	TGGCTCCAGCTACTTTGTCC	102

stSG number	Mouse sequence accession number	Status	Sense primer	Antisense primer	Product length (bp)
stSG77027	AI226097	EST	GGGCTTGCTGTACTTCATCC	GGGAAACGGGAGCTGTAGA	105
stSG77028	D89571	mRNA	CCACTGGATAACCACATCCC	CTCAAAGATGTTGCTGCCCT	174
stSG77029	AJ006140	mRNA	GTTTTGGCCGTGGAGTACAT	AAATGTCATCCTGAGAGCGG	163
stSG77030	AF002719	mRNA	GCCTTAAGCTTGAGAAGCCA	GGAACAGGATTCACGCACTT	103
stSG77031	M57590	mRNA	CCCTGTGTCCTTCTCTGTCC	TCCTTCATCAGGGATTCGAT	132
stSG77032	W15900	EST	ATGCTTGGACCTGAAGTTGG	GCTCATTTTCTGTCCGCAGT	104
stSG77033	W97825	EST	CAGAGCGAGCATAAGGAACC	AAGGTGCGTTCCACGTAGTC	125
stSG77034	BF687342	EST	CTAGAGCATGTTCCCCCACT	AGGCAGGAAGATGATGATGG	105
stSG77035	AF180338	mRNA	GGGGCCAAATTGACATACAC	CTTAGGACGCAAAGCCTGTC	133
stSG77037	X70472	mRNA	ACGTGGTAATACCCCTTCCC	GAGGCCAGACTGGATGAGAG	146
stSG77038	D29015	mRNA	GACCAGTCCCAGAGCAGCTA	TTGAGAGGAGTCCAGGCAGT	157
stSG77040	M83312	mRNA	CTTCGGGTTAAGAAGGAGGG	CATAACTCCAAAGCCAGGGA	132
stSG77041	M83312	mRNA	AAAACACATTCCAAGGCAGG	GCACACATGGAGGTCAAATG	147
stSG77043	U81603	mRNA	CTTCTCCACTGATGGCTTCC	TCCTTCACACGACAGTAGCG	120
stSG77044	AA222144	EST	ACCAGCACGAAGAACCTCAT	CTGTGGTTTGGGCTGTTTCT	124
stSG77045	AA004036	EST	TGGCTGAAGAGGAAATAAAAACCGAGTAGAGATATCCATTCCCTCCA		60
stSG77046	AA178103	EST	TATGAAGCAGCCACTCACCA	TTCAGGACAAAACCAGTCCC	184
stSG77047	AF000581	mRNA	TACAGTGGTGAGAAGTGGCG	TGGCACATTTATCTGGCTTG	121
stSG77048	AA120567	EST	AGGCTTGGATACTGTGCCTC	GTCACTTTGATGGGATTGGG	146
stSG77049	AA796530	EST	AAACATTCCCAAGTTCGTGC	CAACATTGAGGACATCCTGG	101
stSG77050	AA796530	EST	TTCTGATGTTGGAGCAGACAG	AGGAGTTGGCCAAGAGGAC	95
stSG77051	W45951	EST	TGAAAGATCTGGCTTCGGTC	ATCCGTATGAACTCTTGCCG	100
stSG77052	AA023567	EST	ACTCAGTCACCTGAGCCAGC	ATGGCCTCAACAACCTGAAC	102
stSG77053	AA881599	EST	TCTCTCATTGGCCTGTTTGA	CAGATGGATTTTGGGGTTGT	174
stSG77054	AI549625	EST	CCCGTCTTCCTATATGGCCT	CTAAGAATGCCTGGAGCAGC	104
stSG77056	AA611074	EST	ACCATCTTTGGCACCTTCAC	ATGGTGTTTCCGTGGTAGGA	117
stSG77057	AI640027	EST	TTGTCTGCCCCATAAGAACC	TGCCTCCACTATCCTCCATC	101

stSG number	Mouse sequence accession number	Status	Sense primer	Antisense primer	Product length (bp)
stSG77061	AU079453	EST	CAGAGCTCTCATGGACTCCC	GGTAGCTGTGGCTTCTTTGG	154
stSG77062	AF152556	mRNA	TGCCAACCTTGAAGGAGAAT	CTCAGTGACGACGCCAGATA	158
stSG77063	AI851523	EST	CGACAAGAACCAAACCCAAA	CGGCAATGATTTTGGTTATCTA	101
stSG77064	AI553523	EST	CCTGGCTGCTCTCTGGTTAC	CACAGCCTCTTTCCTTGGAC	251
stSG85199	AB001607	mRNA	GGGGCAGATACGTCACTGTT	ATCCTGGCCTTCTCCTCACT	163
stSG85200	W08433	EST	CCTGAGTCCCGAATCTTCAC	GAGCAGCTCAACCACCTCTC	195
stSG85201	X70472	mRNA	AACAGTGGACGCTGATAGCC	ATCCTGTCTTCCTCCTCGGT	124
stSG85202	D29015	mRNA	CTGAAGGTGCCAACCTCAAT	ATGTGGTTCTTCCTCACGCT	151
stSG85203	W83123	EST	AGAAACCTGTCTGTGGGGTG	CAGCCATGGCAAGAAGTCTC	103
stSG85204	M64228	mRNA	CGTGTCCATGAACATGAAGG	ACTTGTTGGGAGACAGGTGG	128
stSG85205	M64228	mRNA	AGCCTCGAGGACAACGAGTA	CCTCGTTCATCTGCTCCTTC	211
stSG85301	AA177721	EST	AAGAGCTGGACTGTGGAGGA	TTCACAAAGGTGCTGTGGAG	252
stSG85302	U71208	mRNA	GTCCCTCCTGGTCAGTCCTC	CGGAGTTGGGTACGCTGTAT	102
stSG85303	AI835478	EST	TTTTCCACCTGATCAAAGCA	CCTTGCCCAATGGATGTAAA	137

Appendix 10: Mouse BAC-end sequence-based STSs.

STS	Sense primer	Antisense primer	End-sequence	Parent clone
stSG85311	GAGCATCAGGACCGCTTTAG	TGGCATCTCTTAACACAGCG	Em:AZ105369	bM22B22
stSG85312	AGTGAGAGCTGAGCAGGGAG	TTCATCATCAAAGACGCTCG	Em:AZ105371	bM22B22
stSG85313	TGAGAAGGCTTGGCTTTTGT	ACCAGCTTGCCTGACAGTCT	Em:AZ088114	bM23N22
stSG85314	AGTGAGTGAAGCCAGGCAGT	ATGGTTGTATCTGCAAGCCC	Em:AZ103297	bM23N22
stSG85315	GCTTTGTAGATCAGGCTGGC	TCTGTGGATTTCCCTCTTGG	Em:AZ011393	bM378K6
stSG85316	CAACCCTGAGATTCCACCTC	TTACCAGTTGGGGCATCTTC	Em:AZ011399	bM378K6
stSG85317	TTTAACCCCAGCTCTCAGGA	GCCCCATCTTTCTTTCTTCC	Em:AZ087306	bM23K9
stSG85318	GTGTGATGAAGCCATTCCCT	GAAGAGAATGACACTGGGGC	Em:AZ087307	bM23K9
stSG85319	ATAAAGCCAGCCATCACAGG	CTTGGCCAGATGGGTCTTAG	Em:AQ971386	bM328D8
stSG85320	CAACCCCAGTGGAGAGAAAG	TATAACGTCCAGCAGGTCCC	Em:AZ038580	bM328D8
stSG85321	TGGCTCCCAACACTTTTACC	CCACACTCACCCTTTTTGCT	Em:AZ108171	bM471I14
stSG85322	GTATTTGCAAGGCAAGCACA	GATCCTTTCCACCGAGTTCA	Em:AZ108174	bM471I14
stSG85323	GTGTTTAGGGCTGGCCTCTT	GCCCACTCATGATATCCCAC	Em:AZ060029	bM414F2
stSG85324	CATAGCAAACAGGGAAAGCC	AGTTCCACAGTGAGGCTGCT	Em:AZ060034	bM414F2
stSG85325	CAAGGCCAGCAGGTGTTTTA	CCCCCACATCATACTTCTTTTT	Em:AZ052261	bM424E13
stSG85326	GCTGGTCATCTATGCTGCAA	GCAAACCCTGCAAGTTTCAT	Em:AZ052265	bM424E13
stSG85327	GTTCTAGGACAGCAGCCAGG	TGGCTTTTTCTCAAGGTTTTG	Em:AZ071410	bM435K23
stSG85328	AGTGGAGGCTCCTTTCCATT	CATTTGAGCCCCAACAAACT	Em:AZ071412	bM435K23
stSG85329	TTTCTCATGCTGTGGTCTCG	AAGCCCTTGGTTCCTCAGAT	Em:AZ075271	bM397C16
stSG85330	CATGTCCCCATGAAATCTCC	TCCTCTACTCAAGGGGCAGA	Em:AZ075276	bM397C16
stSG85331	AACACAGTTCCTGTCCCTGG	ACAGCCTCATGACCATCTCC	Em:AZ034106	bM327A19
stSG85332	CCAGCTCTGTCACCATCAGA	TCCCTGGTTTGAATTTGCTC	Em:AZ034108	bM327A19
stSG85333	TCCTTTGCCTCTCTAAGCCA	CTCTGAGAGCCCAGCTCAGT	Em:AZ021160	bM335N12
stSG85334	ATGGAGAAGCTGGGGAAGAT	GGCTTCTGTTCAGTTCCTGC	Em:AZ021162	bM335N12
stSG85335	CATTAAGGACTCGGGGGAAT	GATGGTGACAATGATGCTGG	Em:AZ039371	bM285O5
stSG85336	TTATTTTGCCCCACTCTTGC	GGTGGCACCAAATCCTTAGA	Em:AZ039372	bM285O5
stSG85337	CCACTTCAGGGACTGCATTT	TTAGCTGGCACCATTAACCC	Em:AZ087726	bM36P22
stSG85338	GGACACCCAGTGAGACCCTA	TGGCAAGTGCTGTTACAAGG	Em:AZ087731	bM36P22
stSG85339	CAACACAAGGCAGAACAGGA	ACTGAAAGGAAACCAAGGGG	Em:AZ080682	bM399D16
stSG85340	ACCAGCACAAGGTCCAAAAC	TGAGCGATGTCAAGAAGCAC	Em:AZ080684	bM399D16
stSG85341	TAATCTTTTCCGTGGCCTTG	CTGGCCTTGGACTCAGAGAG	Em:AZ007440	bM345I23
stSG85342	TGGAATCTTTGGCTTTGTCC	GTCAGGCATTGCCCTGTACT	Em:AZ007446	bM345I23
stSG85343	CTAGGCTTGTCACAGGCTCC	CCTCCCCACCTGGATTTAGT	Em:AQ993950	bM355H6
stSG85344	AAAAAGATGCTTCCCCCATC	TTTTTCCTACCTTCCCACCC	Em:AQ993952	bM355H6
stSG85345	GTTCTCTGGGTACAGCAGCC	CTTAGTAGGCTCTGCCGCTC	Em:AZ042052	bM382N13
stSG85346	GGCAAACAGTGAGAGCAACA	TTTCACAACACTGGCCACAT	Em:AZ042054	bM382N13
stSG85347	CCACCATGTGATTGCTGGTA	CCATGTTAAGGAACCCGAAA	Em:AZ057660	bM428M13
stSG85348	CAGAGCCATGGGGTGTACTT	AATTTCTGACGACAGGGCAC	Em:AZ088690	bM428M13
stSG85349	TTACTACCATCCCTGCACCC	AGGAGCTGGAGAAGACACGA	Em:AZ068663	bM394J1
stSG85350	ACGTGCACACACTTCCACAT	CGGTCCATCTGTATGAGGCT	Em:AZ068667	bM394J1
stSG85351	AGGAAAACCATTTTCATGCG	GTAGGAAGCAGTGCAGACCC	Em:AQ923673	bM294F12
stSG85352	CAGGAAGGAAGATTTCAGCG	CCACCGACATTGTGTGCTTA	Em:AZ019160	bM294F12
stSG85353	AAACAGAATGCAGAATGGGG	GGTTTCCACAAGCCTTCCTA	Em:AQ932728	bM284F12
stSG85354	TGGTCCCATTTATTCGGTGT	GGTCATGATGTTTGTGCAGG	Em:AZ035262	bM284F12
stSG85355	TTCCACTGACTGCAACTAGAGC	GGTGAATATCCAATTTTCAAATCA	Em:AZ025852	bM345N18
stSG85356	ACCCCCAAAATTCTACCAGC	ACGCATGAGCATCATTTAGC	Em:AZ025857	bM345N18

STS	Sense primer	Antisense primer	End-sequence	Parent clone
stSG85357	GCCTCCTGAGAGCTAGGGTT	ATGACTCCAAGGTTTGGCAC	Em:AQ995176	bM383K1
stSG85358	GCAGATAGCACCCTGGAGAG	AATGTGAAGGGAACAGACCG	Em:AQ995178	bM383K1
stSG85359	GAACAAAACCCCAGGAACG	TTTCCCTTTTGTGTTTTGCC	Em:AZ105691	bM455P19
stSG85360	GACACCAGCGGCACAGAA	CTGCTGTGGGGCCTCTTC	Em:AZ105695	bM455P19
stSG85361	GCTTCAAAGCACCTCAGAGC	CGGGTAACAGGTGCTTCTTC	Em:AZ094209	bM448B9
stSG85362	CATTACTGCCTGGCTCCCTA	GGTAGGTAGGGTGCGTGTGT	Em:AZ094214	bM448B9
stSG85363	GAAGAAAAGTCCCCCACCTC	TTTTAAATGTGGAGCCAGCC	Em:AQ918418	bM271D20
stSG85364	TCACGCATCACGAGTGTGTA	CAGCCTTCCAGCTCAATCTC	Em:AQ918421	bM271D20
stSG85365	TTCTTGAGAGCTCCCCATGT	ATTGCTGAGGTGATGCTGTG	Em:AQ972328	bM328K5
stSG85366	GTCCTCCTGACCAAAGTCCA	TCTTCTGGCTTCTTTGGGAA	Em:AZ039808	bM328K5
stSG85367	CTCAGTCCAGAGCCTTGTCC	ACAATCAGCTCACAAACCCC	Em:AQ998366	bM356E13
stSG85368	AGGGCTAGCTCCCTCTATGC	TGGTCATCTGGAGAAGGGAC	Em:AQ998368	bM356E13
stSG85369	CCTGGAGATTGTTCCCAGAA	CCTCAGTTTCCCCAACCATA	Em:AZ031930	bM363O18
stSG85370	GGTGGGCAGGTTAACTTCAA	TGGGATTTGAACTCAGGACC	Em:AZ031934	bM363O18
stSG85371	CTAAATGTCGACGGCCAGA	TCCAGTTTTCTGAGGAACCG	Em:AZ030549	bM245F10
stSG85372	CTAGGGAGTGGGCTAGGCTT	CTTCTACGGCTCCAGACCAG	Em:AZ030550	bM245F10
stSG92901	AGCTAGTGAAGGCCAGGTCA	CTTGCCTTTGAGTGGGAGAG	Em:AZ280759	bM122E21
stSG92902	TTTGCAGTTCTCACAGCAGG	ATGTGCTGCTAGCCTTGGAT	Em:AZ280756	bM122E21
stSG93001	TAAACCGGGGTGTCTGGTTA	AGTTATGGGCCCTGCCTAGT	Em:AZ090774	bM7G21
stSG93002	TCAACACAGAAAATGCCCAA	TCTCCACGCACAAACAAGAG	Em:AZ090784	bM7G21
stSG93003	CACTCGGAGGTGAGAACACA	GTCCCCAAATGCTGGAGTTA	Em:AZ099280	bM480D17
stSG93004	TTGGATCAGAAGGCCAAAAG	AGCAACCTCCAACTCTCCCT	Em:AZ099281	bM480D17
stSG93005	GAGGGGCCCTAAAATAGCTG	CCGCACTGGACTGACACTAA	Em:AZ092826	bM7O16
stSG93006	CTAGCAAGAATGGCCGAAAG	ATCCCCCAACACACTACAGC	Em:AZ099281	bM480D17
stSG93007	TATTGCTTTGCTGGCTCAAA	AATCTCATGCTGGGGTTCAG	Em:AQ928451	bM264D2
stSG93008	CGATCTCACTTTGAGTGGCA	TCTGTGACTGGCTTCTCACG	Em:AQ993701	bM264D2
stSG93009	GCCCATGCGCTGTAGATTAT	AAAAGTCCTCCCATTGTCCC	Em:AZ116954	bM16J17
stSG93010	GGCTCAGTGGAGGTGAAGAG	GGCTAGGGATGGTTGTGAAA	Em:AZ116955	bM16J17
stSG93011	GCACACTCTGATTCTTGCCA	CTTGGAATGTGAGGAGCCAT	Em:AQ975929	bM338B13
stSG93012	CTTCCCACATACCCAAGCAT	AAGCACATTATGCCTGACCC	Em:AQ995655	bM338B13
stSG93013	ATCGGCCTGGCTATCCTATT	GTGGAGGGACAGGAAACTGA	Em:AQ997651	bM371C18
stSG93014	ATTCTCCATGCCAGACCATC	TTGGCCTCTGCCTTTTCTTA	Em:AQ997654	bM371C18
stSG93021	AGAGGAAGCCGCCTATCATT	CTACCCTGATGGGCAGAAAA	Em:AZ036759	bM392O2
stSG93022	TGGTAACATGGAGGCAGACA	GGAGTAGGTGTGGCATTGGT	Em:AZ036755	bM392O2
stSG93023	CACTGTGGCATGTAGATGGG	GGAGGGAGGGACTTGGTTAG	Em:AZ122159	bM30C22
stSG93024	ATACATGGCCCACCATTGTT	CGCCACATTTTCAACATCAC	Em:AZ122161	bM30C22
stSG93025	AGCCCAAGGCAGTAGGAAAT	CTGTGTCAGGCTATGGCAGA	Em:AZ079157	bM400C18
stSG93026	CAGAACATTGCAAGGCAGAA	CCAAATGAGGTGTCACATGC	Em:AZ079153	bM400C18
stSG93027	CCAACACAAAGAGAGGGGAA	GCATATCTGCAGCGAGTTCA	Em:AZ029651	bM376G18
stSG93028	GTTTGGGAAAGATCCAGCAA	GCCTTTCTCTGGTGTTCAGC	Em:AZ029656	bM376G18
stSG93029	GAACCGCAGGAGAGACAGAC	TTCCCCTCTCTTTGTGTTGG	Em:AZ124020	bM466K24
stSG93030	TTTGTGGTCCTCAGCCTTCT	CATTTAGCCAGTCCTCAGGG	Em:AZ124022	bM466K24
stSG93031	TTGGCTGGTTGAGGTAAAGG	CATTGTCACACCTGACGACC	Em:AQ928402	bM264B16
stSG93032	AAGGAATGGACCCAAACTCC	TATCATGCCAACGGATGTGT	Em:AQ993569	bM264B16
stSG93033	TCCTCATGCATTCTGCAAAG	AGGGATGTGTGTGACAGCAG	Em:AZ077944	bM452H13
stSG93034	ATCTGTTGGTGGCCTTTTTG	GAAGATATGGGCACAAGGGA	Em:AZ101722	bM452H13
stSG93035	AGCCCTTGTGTTTGCATAGC	AGTTTGGGGGAGGATGAACT	Em:AZ245759	bM41B10
stSG93036	TCTGACTCCTGGGACAGCTT	TCCACACACAGTGGGGATAA	Em:AZ245736	bM41B10

STS	Sense primer	Antisense primer	End-sequence	Parent clone
stSG93037	TTAGTCACCGGAAGAGGTGG	TAGGCTGGGCTAGAAATCCA	Em:AZ083890	bM20G15
stSG93038	TGGACCTAGAGGGCATCATC	TGGGTGTTTTGTTCCCAAAT	Em:AZ083889	bM20G15
stSG93039	CCCCTACTGCAGCATTTCAT	TGAGGATGCACCAGAGACAG	Em:AZ233207	bM53I23
stSG93040	TTAGCATGTGGCTATGCTGC	CTTGTAAGGGTGGGACTGGA	Em:AZ233206	bM53I23
stSG93041	CTGAGTGCAATAGGGGGAAA	CCTTGGGTGGTTTTCTTTGA	Em:AZ070451	bM422E20
stSG93042	GAGGGGACAATGACCCTGTA	TGTCTCTGCCTTCCAGGTCT	Em:AZ070453	bM422E20
stSG93043	ACACCAGTGGCCAATCTAGG	ATAACCATCTCCCTCCCTGG	Em:AZ055536	bM401E14
stSG93044	AGTGCAGCCAAGCAACAGTA	GAAGCAGATAATTGTGGCCC	Em:AZ055537	bM401E14
stSG93045	AGGCTTATGAGTGGCTGGAA	AATCGACGCACCTTTTATGG	Em:AZ242223	bM90N15
stSG93046	CTTAGTACAGGGCACACGCA	CGGCAGTACAGGGCATAGAT	Em:AZ242221	bM90N15
stSG93047	AACGCCTCTCCACTCAGAAA	GGACTGCCCTGTGACTTCTC	Em:AZ241536	bM75D18
stSG93048	CAGAAGTATGGCCAGCAACA	AAGGATACAGGCATGAACCG	Em:AZ241529	bM75D18
stSG93049	GAGAGAGAGAGCCTGCTGGA	TAGGTTATTAGGGGCCACCC	Em:AZ234410	bM67L5
stSG93050	AAACAGACCAAGCAAAGCGT	CCGTGGATCTTTCTGCTCTC	Em:AZ234406	bM67L5
stSG93051	CCACAGTCATCTGGAGGGAT	AGCCATGTTGTCAATAGCCC	Em:AZ068118	bM392L18
stSG93052	GCCTTGCAGAAACTTTGGAG	GAGAAAGTGGGGAAAAGCCT	Em:AZ068124	bM392L18
stSG93053	ATATGGATCATGGCATGGGT	GGCTCTAGGGTCATTTTGAGG	Em:AZ067326	bM392H4
stSG93054	GAAAGCACTCTGCACCCTTC	GCCAGCATGTGGGTTAAGAT	Em:AZ067328	bM392H4
stSG93055	ATTGGATGGAGCACAAGGTC	CGGGGGTACTGGTTAGTTCA	Em:AZ106933	bM34L21
stSG93056	TCCTGGTTGTAGATGGCACA	CTCACGGTGTGCATGTGTTT	Em:AZ106937	bM34L21
stSG93057	CTGGTTTGTCTTGCTCCCAT	GAGAGCAGCACTCCATAGGC	Em:AZ093224	bM14A22
stSG93058	CCAGAGCAATTCGACAACAA	TGAGAAGGGTGTTGTTTCCC	Em:AZ093226	bM14A22
stSG93059	ATCTGTTGGTGGCCTTTTTG	GAGCAATGGCTTGTGCTGTA	Em:AZ040471	bM329C16
stSG93060	GAAGATGTCCCAACCGGTAA	ACCTCACTCAGGATGATGCC	Em:AQ973463	bM329C16
stSG93061	GGCAGAGGAGCACGTAAAAA	AGCATCTGCTGTCACCTGAG	Em:AZ094011	bM14D12
stSG93063	CCTCCATTGTTGGTGGGATA	TTACCGGTTGGGACATCTTC	Em:AZ237927	bM87H22
stSG93064	CCTAGCATTTGGGGCATAGA	CCAAGAAAATGGTCCCAAGA	Em:AZ237922	bM87H22
stSG93067	TGGCACTAGTACCCACACCA	ACTTGCAGGTTGCCCAATAC	Em:AQ981886	bM303D1
stSG93068	AACCTTCACATGTTGGCACA	TCTGGAATGCTCTTGTGACG	Em:AQ995814	bM303D1
stSG93069	GCTGAAAGGAACGGAGTCTG	TCCTGTGATGCGCTTAGATG	Em:AZ102205	bM4C20
stSG93070	TGCCTGGAAACAAATGAACA	ATGGTTGGATTTGGGAAACA	Em:AZ102206	bM4C20
stSG93071	GTCCTCACGTGGATGAACCT	GTTACTTGCAGACCCCCAAA	Em:AQ931798	bM282E8
stSG93072	CCCACTCCTACACAGCCCTA	GTGTGTGTGCATGCATGTGT	Em:AQ931801	bM282E8
stSG93073	TTTGTTTTGTTGCCAGACCA	CCACAAAAGTGCCTCATCCT	Em:AZ026394	bM345O21
stSG93074	TCCCTTCTCCTCCTCCCTTA	CTGTGTTCCCTCATCCTCGT	Em:AZ026399	bM345O21
stSG93075	GCTGTTGCTCTTGCTAATGC	AGTTCTTTGGGGGCAATTTT	Em:AZ228499	bM54O6
stSG93076	GATGGCTTCGTGGTTAGGAA	CACAATTCAGCACATCAGGG	Em:AZ228496	bM54O6
stSG93077	CCCTTGTTGGCTAGCTTTTG	GAGCCCAGTCATGTGGTTTT	Em:AZ232817	bM68L12
stSG93078	AGAGGCCCAAAATGTCTCCT	TGGTTCTTCCCATTCTCAGC	Em:AZ232811	bM68L12
stSG93079	ACAGGTCCTGCCAAGAGAGA	TCCCATCCCAGCTGTTCTAC	Em:AQ921960	bM275P22
stSG93080	TTTGGCAACTGGTTTTGTCA	TGCACTCTCAGTATCACGGC	Em:AQ921963	bM275P22
stSG93081	TAGTGGATTGCGTTGATGGA	CCGAGAACCAACTCAAAACAA	Em:AZ102380	bM32J9
stSG93082	AACAGTTTGCAAAGGGGCTA	GAAAGCTAAGGGGAGCAAGAA	Em:AZ102377	bM32J9
stSG93083	GGGGGTCCTAGCTAAACAGG	CCCTTCTGTCATGGTGGACT	Em:AZ008703	bM362M10
stSG93084	ATTATTCCCCATTTCCAGCC	GAGGAAGACAGCAGTGGGAG	Em:AZ008707	bM362M10
stSG93085	TACATTTTGCCATTGCTCCA	GCTCTCCCATTTCAGAGCAC	Em:AQ986388	bM326F18
stSG93086	ACCAATCCAACATAGGCTGC	GCTGGCTAGCAAGTCCATTC	Em:AQ986390	bM326F18
stSG93087	CTCCCCATAACACACAGCCT	CTGGGACTGGGCAGTAAAAA	Em:AZ008128	bM348B16

STS	Sense primer	Antisense primer	End-sequence	Parent clone
stSG93088	GCGTGATATGTTCAGGGGTC	GCCCAACAGTAGAAACCCAA	Em:AZ008133	bM348B16
stSG93089	CTCAGCTGTAGCTTCCTGGG	ATGGGTCAGCAGGAGCATAA	Em:AZ056789	bM414O8
stSG93090	TGTTCCTCGCACTAGACCCT	GTGCAGGAAGAACGTAAGGC	Em:AZ056791	bM414O8
stSG93091	GAGGCTCTGTGGGAGAACTG	AGAGCCCATGAATTTGCATC	Em:AQ982691	bM307D13
stSG93092	ACTTTGTACCCAGCCCTCCT	GCATAGGACAGCAGCACTCA	Em:AQ982692	bM307D13
stSG93093	CCTAGGAAGTGCAAGCAAGG	TGTGCCTGCCTGTGAGATAG	Em:AZ114921	bM13J16
stSG93094	GGAGTGATCCCGTGTTAGGA	TAGCCAGCAAGGAAGACTGG	Em:AZ114920	bM13J16
stSG93095	CAGTGCTGCTTCTGCTTCAG	GGTCAGAAAGGAAGATGCCA	Em:AZ279592	bM113I22
stSG93096	CTTGTCCTCTTGCCCACAAT	GAAAGGAGTGAATTGGCCTG	Em:AZ279591	bM113I22
stSG102483	ATGTATGGTGTCCACTCGCA	ATCAGAATTCACCTGGGTCG	Em:AZ041304	bM380K13
stSG102484	CGGCTTAAAGGCAGAACAAG	GCACAATTTCCAGGGAGAAA	Em:AZ041307	bM380K13
stSG102485	AGCTGGCTGTTTCCTCATTG	TGCGAGTGGACACCATACAT	Em:AQ927197	bM257I13
stSG102486	TTTTGCCAATCCTCGATCTT	AGAGGAGAAAGTGGGGAAAAG	Em:AQ971030	bM257I13
stSG102487	ACCTGCTACCTTGCAGATGG	ACAGCTGCAACACAAACTGG	Em:AZ296378	bM160F6
stSG102488	TGTCTGGCGTGAAAGAGATG	AGTCTTCCCAGAGCTGACCA	Em:AZ296399	bM160F6
stSG102489	TCTGACTCCTGGGACAGCTT	TCCACACACAGTGGGGATAA	Em:AZ245736	bM41B10
stSG102490	AGCCCTTGTGTTTGCATAGC	AGTTTGGGGGAGGATGAACT	Em:AZ245759	bM41B10
stSG102491	GTTAGGGTCATGGGATGCAG	TCTGTTCAAGGCAGTTTCCC	Em:AZ230080	bM97B17
stSG102492	CTCAGAAATCTGCCTGCCTC	GGCTGGATTGGTGTCTCAGT	Em:AZ230088	bM97B17
stSG102493	AAAACAGGGGAGATCCAGGT	GGTGAGCCTACCTGGACAGA	Em:AZ227384	bM52H2
stSG102494	GCACCCTGACAACCATTTTT	CACACACACACACACACTATGG	Em:AZ227387	bM52H2
stSG102495	CCAGGCCTGAGAAGACAAAG	AGCCAGCTGAATACCAGCAT	Em:AZ288877	bM129E1
stSG102496	TGGCTTGTGCTGTAAGATCG	CCCAGTCTGTTGGTGGTCTT	Em:AZ288880	bM129E1
stSG102497	GAGGCTCTGTGAACTCCTGG	TACTGAAGAGCCTCCCGCTA	Em:AZ245837	bM90C9
stSG102498	AATCCTCGTGGACTGTCGTC	TTCCGGTACTACACCAAGCC	Em:AZ245843	bM90C9
stSG102499	AGGATGGAGCACAATTCACTC	CATGGTTCCACAGATGTATGC	Em:AZ112090	bM446P19
stSG102500	CAACGGTCATTGCTTTCCTT	CTGAAAGCCTCTCATGGCTC	Em:AZ112093	bM446P19
stSG102501	CCCTTTCTAAAGCTGGACCC	CCTTGCCAGCCAGTTATCAT	Em:AZ289501	bM156F17
stSG102502	CCAGCTTCAGAAAAGTTGGC	CTCCCAACCAGAAAGAGCAG	Em:AZ111263	bM472C2
stSG102503	GTGAGAGCAAACCAAGGAGC	ACACTTGACTGCTGTGTGCC	Em:AZ281170	bM138C10
stSG102504	CAGTTGGAGCATCTTCTGGG	CAAGCGGGTACAACCACTCT	Em:AZ247477	bM58B6
stSG102505	AAACAGACCAAGCAAAGCGT	CCGTGGATCTTTCTGCTCTC	Em:AZ003494	bM372G22
stSG102506	ATTGGACACAGAAGGGGATG	TATCCGGAGGCGATAATCAG	Em:AZ003498	bM372G22
stSG102507	CAGTGCGCAGACTCATTCAT	TAGGGAGAGCGGCTTTTACA	Em:AZ266354	bM127G5
stSG102508	AGGACGAACTCCTTTCACCA	GTCCAGGGGCTTTACCTTCT	Em:AZ266357	bM127G5
stSG102509	TCAGGAATTTTTCCCCTGTG	ACCCAGAAATGAACCCACAC	Em:AQ980679	bM350M23
stSG102510	CATCCCATGAAAATGGAACC	GCTTCCTCTCCTCTGCATTG	Em:AZ034955	bM350M23
stSG102511	TACCTCTGTACCCTGCCCAC	CGGAACTTGTAGGCCATGTT	Em:AZ272974	bM118A2
stSG102512	AACCCAAGGCTTCATGTACG	TGATGGTAGTCGACCCTTCC	Em:AZ273083	bM118A2
stSG102513	TCTGTGGTTTTCACTGTCGC	TAGAAAGGCCCAGAGAAGCA	Em:AZ263712	bM140D8
stSG102514	TGCCCTGTCATGTGATGAAT	GGCTACCCTAAACGAGGGAC	Em:AZ263715	bM140D8
stSG102515	CCGCTGCTTTTCTCTTCATC	AGACCCCACACCAAGACAAG	Em:AZ285540	bM155G13
stSG102516	CCACAAAGACTCCACCCTGT	CTACCAGCATGCACCTCTGA	Em:AZ285544	bM155G13
stSG102517	GACAAGCATGTGTTGGTTGG	AGTTCAGTCCCATGGCAAAC	Em:AZ043050	bM244C17
stSG102518	TATGGCTACAGCCACCATCA	TGGGTGCTACTCACTACCCC	Em:AZ020223	bM299J24
stSG102519	TTTCAAAACCGGGTAGGTGA	TGTTTTGTTCAGGACCTCCC	Em:AZ071388	bM435K19
stSG102520	CATGGAGACAGCAAAGGACA	TCAAATGCTATCCCCAAAGC	Em:AZ086915	bM36K24
stSG102521	GATGGCTTCGTGGTTAGGAA	CACAATTCAGCACATCAGGG	Em:AZ228496	bM54O6

STS	Sense primer	Antisense primer	End-sequence	Parent clone
stSG102522	GCTGTTGCTCTTGCTAATGC	AGTTCTTTGGGGGCAATTTT	Em:AZ228499	bM54O6
stSG102523	CAGAAGTATGGCCAGCAACA	AAGGATACAGGCATGAACCG	Em:AZ241529	bM75D18
stSG102524	AACGCCTCTCCACTCAGAAA	GGACTGCCCTGTGACTTCTC	Em:AZ241536	bM75D18
stSG102525	GAGGGTGGTGCTTCTGAGAG	GGAAGAAGTCGCTGGTCTTG	Em:AZ023266	bM336L6
stSG102526	CAAGGCCACAGCAACTCTTA	TGTCTGCCCATCCTGATGTA	Em:AZ052658	bM336L6
stSG102527	AAAGCAATTCATGGGCAAAC	GGGGAGAGTGTGCATTCTTG	Em:AZ025839	bM316C16
stSG102528	GGGTTGTTCTCAGCTTCTGG	CTGGGGGTTCCAAAGAAAAT	Em:AZ025844	bM316C16
stSG102529	ACCCATTCTGTTCTCTGGAA	CCCACAGATTGGGAAAAGAA	Em:AZ061951	bM414K20
stSG102530	CAGTGCCATTTCAACCAAGA	TGTCCAAGTGAGGCACAAAG	Em:AZ061954	bM414K20
stSG102531	TCTCAAAGCTTTAACCAAAGGC	AAGAACCAAGCAGCATTTGAA	Em:AZ252288	bM57L24
stSG102532	TCCCAATCTGTATGTTGCCA	ACTCACATGGCTCAGGCTCT	Em:AZ252289	bM57L24
stSG102533	AATAAGTCACCGGATGGTGC	AGGAGACATTTTGGGCCTCT	Em:AZ232811	bM68L12
stSG102534	AAAACCACATGACTGGGCTC	GAACCCATGAAGGCAACCTA	Em:AZ232817	bM68L12
stSG102535	AGTCTGCTTGGGGGAATTTT	GTGATATGCCAACGGCTCTT	Em:AZ294646	bM105O8
stSG102536	TTTCTGAAGTCCACCTTCTTGA	CTCCAAAGTTTCTGCAAGGC	Em:AZ294647	bM105O8
stSG102544	TGCCCCTAGCTTCTACCTCA	GACTGAAGCACTCAGGAGCC	Em:AZ267556	bM443O6
stSG102545	TGGGTCTTGGGTTGTCTAGG	TTGTGTCAAAACCCCACAAA	Em:AZ267562	bM443O6
stSG102546	GATGCGTACCACTCCTCCAT	CTGGCCTCAGGGTGTGTATT	Em:AQ995696	bM387A13
stSG102547	CTCACAGTCAAGCAGGGACA	GCAGATGGTCTGGTTCCATT	Em:AQ995699	bM387A13

Appendix 11: Mouse genetic markers mapped on mouse contig.

Name	STS (stSG) number	Sense primer	Antisense primer	Product length (bp)	Position (cM)
D2Mit310	114695	TTTAAATGAAGAATAAGGTCAGAAACA	GCATTAATTCTCATTCTCAATAATGG	138	77.6
D2Mit142	104950	AGCAAGGCATAAGGAGACCA	GGGTGGCTCTATTAGGCACA	118	78.7
D2Mit263.3	104951	TTTCTGCTGTGGGTTCTAAGAA	ATGCGACTCAGGTCTCATGA	111	78.7
D2Mit497	104952	ACTCTGTCTCTGTTTCTATGTCTCTCT	CAACTAAAAGTTCACTTGGTAAAGATT	249	78.7
D2Mit143	104953	ACATTAGAAGGAAATGAAAACATGC	CCCTTTTACTTCCCCATGCT	98	78.7
D2Mit263	104954	ACTGAATCATCTCTCTCCTCAGC	AGTTCAGTTCTTAGAACCCACAGC	138	78.7
D2Mit196	104956	AAACACATGCATGTGCACG	TTCAAAACCCCTCCCTCC	144	78.7
D2Mit452	104957	TCCCACATTTCTGGCATACA	CACATGTGCATTTAAGCATGC	123	78.7
D2Mit453	104958	CCTGAAATTTCCCTTCATAGTAGG	GAAGACACCCACAAGACTAATGC	114	78.7
D2Mit197	104959	CTGGCAGTGACCATGGTG	CATGATCAAAGTACACTCTATTTCCC	147	78.7
D2Mit452.2	104960	GCATGCATGCTTAAATGCAC	GTTAGAGCTCCAGATTCAGTGAGAGA	143	78.7
D2Mit410	104961	TGGAATGTATCCTTTGGGGA	TTGTTTGTTTATTTGTTTGTTCAGG	119	78.7
D2Mit412	104962	ACAGGGCTGCAGAGACCTAA	GACTATCAAAAAGATGGTATTGATGG	125	78.7
D2Mit49	104963	CTGTAACTCCAGGGGATCCA	TGGTGCTCTCAAGGCTAACA	149	79.8
D2Mit51	104964	GTGAGGGGTCAATGCCAC	GGCTCAGTTGTAAGCACAAGG	126	79.8
D2Mit455	104966	CTCCAAGGTCTGATATACATACATACA	TTATGTGCACTGGTGTCTAGCC	121	80.9
D2Mit226	104967	TTTTTGCAACTTTGTTAAGAATTCC	AAAACACCCTCCCACCCTT	101	80.9
D2Mit454	104968	ATTGAGTTGCAGAGGGTAACTAGG	TGAATTGTTCACCACTGGGA	111	80.9
D2Mit498	104969	GCAGCCTTTCCTTCCTTTCT	CAGATAGAGCACTCAGACATACATACA	122	80.9
D2Mit29	104970	CGGTGACGAAGCTTCTGAG	CTTTGAATATGAACTCTCACCTTCC	115	80.9
D2Mit71	103373	CATCTGTGTGACCCACAAGG	ACATCAAAATGCAAGAGGGC	163	80.9
D2Mit170	103374	GGGCTTCCATCAACTCTCTG	CATTGGTGCAGCACTTGC	137	80.9
D2Mit527	103376	AAAGATGGGTGGGCTCTTCT	TTTTTGTAACTCAATCCCCCC	90	82.0
D2Mit289	103377	CTGCCCTTCTCCCTCCTC	CACGTCTTTGTGTGAGAAAACG	129	83.1

D2Mit288	104971	TGCTGTCACTGGGGTTGTTA	TCCTTCCTCTGACCACCAAC	199	83.1
D2Mit311	104972	ACAGGCAGCCTTCCCTTC	TCTGTCCCGCTTCTGTTTCT	126	83.1
D2Mit290.4	104974	AATGCTTGCTCATGCGAATA	GCAGACATGAGAAACCCTGT	150	83.1
D2Mit290	104975	TTATTTTTGGATGAGAGAGAACTGG	AATGGGAGAGAACTGACCCC	191	83.1
D2Mit342	104976	CTCAAGAAACAGCAACAAGGG	CCTGCCTATGTGGCCCTG	92	83.1
D2Mit227	104977	TCTGTCTGCCTGCCTATGTG	TGAGATCTTGTCTCAAGAAACAGC	111	83.1
D2Mit53	104980	GTGGACATTCCCTGAGAAACA	GGGGTTTGATCAGCTCATGT	148	84.2
D2Mit413	104981	GATAATGTCCTCAGAAGGTGGC	AATTTAGCAGGCACTCGTGG	117	84.2
D2Mit145	114697	TGGGGAGGAGACCAGACTC	AAAGGCTTCCGGAAGAGGTA	144	84.2

Appendix 12: Human clone sequences.

Clone name	Library	Sequence accession number	Chromosome	Sequenced by
bA120I11	RPCI-11.1	AL357560	20	Sanger Institute
bA151A11	RPCI-11.1	AL359695	20	Sanger Institute
bA179J15	RPCI-11.1	AL359984	20	Sanger Institute
bA179N14	RPCI-11.1	AL354745	20	Sanger Institute
bA269H4	RPCI-11.1	AL445192	20	Sanger Institute
bA298O6	RPCI-11.2	AL118525	20	Sanger Institute
bA314A4	RPCI-11.2	AL359434	20	Sanger Institute
bA321P16	RPCI-11.2	AL139351	20	Sanger Institute
bA323C15	RPCI-11.2	AL354766	20	Sanger Institute
bA32G22	RPCI-11.1	AL136461	20	Sanger Institute
bA347D21	RPCI-11.2	AL357558	20	Sanger Institute
bA394O2	RPCI-11.2	AL133227	20	Sanger Institute
bA445H22	RPCI-11.2	AL139352	20	Sanger Institute
bA456N23	RPCI-11.2	AL353777	20	Sanger Institute
bA465L10	RPCI-11.2	AL162458	20	Sanger Institute
bK2007A7	CIT-HSP-D1	AL359506	20	Sanger Institute
bK2653D5	CIT-HSP-D2	AL354813	20	Sanger Institute
dJ1005L2	RPCI-5	AL445286	20	Sanger Institute
dJ1013A22	RPCI-5	AL132772	20	Sanger Institute
dJ101A2	RPCI-1	AL133520	20	Sanger Institute
dJ1028D15	RPCI-5	AL121886	20	Sanger Institute
dJ1030M6	RPCI-5	AL035089	20	Sanger Institute
dJ1041C10	RPCI-5	AL162615	20	Sanger Institute
dJ1049G16	RPCI-5	AL034418	20	Sanger Institute
dJ1050C22	RPCI-5	AL121888	20	Sanger Institute
dJ1050K3	RPCI-5	AL121776	20	Sanger Institute
dJ1057D4	RPCI-5	AL121777	20	Sanger Institute
dJ1063B2	RPCI-5	AL035683	20	Sanger Institute
dJ1069P2	RPCI-5	AL109839	20	Sanger Institute
dJ1079N22	RPCI-5	AL161944	20	Sanger Institute
dJ1108D11	RPCI-5	AL034419	20	Sanger Institute
dJ1121H13	RPCI-5	AL049812	20	Sanger Institute
dJ1121P14	RPCI-5	AL138806	20	Sanger Institute
dJ1123D4	RPCI-5	AL049691	20	Sanger Institute
dJ1164I10	RPCI-5	AL049537	20	Sanger Institute
dJ1167E19	RPCI-5	AL133229	20	Sanger Institute
dJ1183I21	RPCI-5	AL035447	20	Sanger Institute
dJ1185N5	RPCI-5	AL034423	20	Sanger Institute
dJ128O17	RPCI-1	AL031654	20	Sanger Institute
dJ138B7	RPCI-1	Z98752	20	Sanger Institute
dJ148E22	RPCI-1	AL008725	20	Sanger Institute
dJ148H17	RPCI-1	AL109825	20	Sanger Institute

Clone name	Library	Sequence accession number	Chromosome	Sequenced by
dJ155G6	RPCI-1	AL121903	20	Sanger Institute
dJ172H20	RPCI-1	AL049767	20	Sanger Institute
dJ179M20	RPCI-1	Z97053	20	Sanger Institute
dJ191L6	RPCI-1	AL009050	20	Sanger Institute
dJ1J6	RPCI-1	AL035652	20	Sanger Institute
dJ211D12	RPCI-1	Z93016	20	Sanger Institute
dJ230I19	RPCI-1	Z93942	20	Sanger Institute
dJ232N11	RPCI-1	AL031656	20	Sanger Institute
dJ237J2	RPCI-1	AL021394	20	Sanger Institute
dJ257E24	RPCI-1	AL034424	20	Sanger Institute
dJ269M15	RPCI-1	AL021395	20	Sanger Institute
dJ272H18	RPCI-1	AL109826	20	Sanger Institute
dJ28H20	RPCI-1	AL031055	20	Sanger Institute
dJ29M10A	RPCI-1	AL390211	20	Sanger Institute
dJ29M10B	RPCI-1	AL390212	20	Sanger Institute
dJ300I2	RPCI-1	AL035660	20	Sanger Institute
dJ337O18	RPCI-3	AL008726	20	Sanger Institute
dJ342O24	RPCI-3	AL133341	20	Sanger Institute
dJ387E22	RPCI-3	AL031660	20	Sanger Institute
dJ3E5	RPCI-1	AL022239	20	Sanger Institute
dJ409O10	RPCI-3	AL031256	20	Sanger Institute
dJ447F3	RPCI-3	AL050348	20	Sanger Institute
dJ450M14	RPCI-3	AL132654	20	Sanger Institute
dJ453C12	RPCI-3	AL021578	20	Sanger Institute
dJ453O12	RPCI-3	AL136102	20	Sanger Institute
dJ461P17	RPCI-3	AL031663	20	Sanger Institute
dJ470L14	RPCI-3	AL133174	20	Sanger Institute
dJ47A22	RPCI-1	AL117374	20	Sanger Institute
dJ485M8	RPCI-3	AL353797	20	Sanger Institute
dJ495O3	RPCI-3	AL121587	20	Sanger Institute
dJ508O2	RPCI-3	AL354812	20	Sanger Institute
dJ511B24	RPCI-3	AL022394	20	Sanger Institute
dJ540H1	RPCI-4	AL121674	20	Sanger Institute
dJ569M23	RPCI-4	AL031666	20	Sanger Institute
dJ599F21	RPCI-4	AL035662	20	Sanger Institute
dJ601O1	RPCI-4	AL109656	20	Sanger Institute
dJ620E11	RPCI-4	AL031667	20	Sanger Institute
dJ644L1	RPCI-4	AL035665	20	Sanger Institute
dJ661I20	RPCI-4	AL031669	20	Sanger Institute
dJ66N13	RPCI-1	AL137078	20	Sanger Institute
dJ686N3	RPCI-4	AL049766	20	Sanger Institute
dJ688G8	RPCI-4	AL031671	20	Sanger Institute
dJ690O1	RPCI-4	AL118521	20	Sanger Institute
dJ707K17	RPCI-4	AL024473	20	Sanger Institute

Clone name	Library	Sequence accession number	Chromosome	Sequenced by
dJ710H13	RPCI-4	AL121712	20	Sanger Institute
dJ730D4	RPCI-4	AL035666	20	Sanger Institute
dJ73E16	RPCI-1	Z95330	20	Sanger Institute
dJ753D4	RPCI-4	AL031676	20	Sanger Institute
dJ781B1	RPCI-4	AL118522	20	Sanger Institute
dJ791K14	RPCI-4	AL035685	20	Sanger Institute
dJ796I11	RPCI-4	AL031257	20	Sanger Institute
dJ81G23	RPCI-1	AL035459	20	Sanger Institute
dJ824J5	RPCI-5	AL034552	20	Sanger Institute
dJ839B11	RPCI-5	AL121778	20	Sanger Institute
dJ862K6	RPCI-5	AL031681	20	Sanger Institute
dJ881L22	RPCI-5	AL117382	20	Sanger Institute
dJ890O15	RPCI-5	AL049540	20	Sanger Institute
dJ892M9	RPCI-5	AL121828	20	Sanger Institute
dJ906C1	RPCI-5	AL133342	20	Sanger Institute
dJ914M10	RPCI-5	AL121763	20	Sanger Institute
dJ94E24	RPCI-1	AL050317	20	Sanger Institute
dJ963K23	RPCI-5	AL031685	20	Sanger Institute
dJ970A17	RPCI-5	AL034431	20	Sanger Institute
dJ981L23	RPCI-5	AL031686	20	Sanger Institute
dJ991B18	RPCI-5	AL049541	20	Sanger Institute
dJ993C19	RPCI-5	AL121786	20	Sanger Institute
dJ995J12	RPCI-5	AL035462	20	Sanger Institute
dJ998C11	RPCI-5	AL035106	20	Sanger Institute
dJ998H6	RPCI-5	AL031687	20	Sanger Institute

Appendix 13: Mouse clone sequences.

Clone name	Library	Sequence accession number	Chromosome	Sequenced by
bM100C4	RPCI-23	AL672162	2	Sanger Institute
bM105M23	RPCI-23	AL591854	2	Sanger Institute
bM108D12	RPCI-23	AL589902	2	Sanger Institute
bM109E10	RPCI-23	AL589874	2	Sanger Institute
bM117O11	RPCI-23	AL589876	2	Sanger Institute
bM118A2	RPCI-23	AL589870	2	Sanger Institute
bM120P1	RPCI-23	AL589873	2	Sanger Institute
bM126L18	RPCI-23	AL591586	2	Sanger Institute
bM129E1	RPCI-23	AL645794	2	Sanger Institute
bM138C10	RPCI-23	AL591712	2	Sanger Institute
bM140D14	RPCI-23	AL591478	2	Sanger Institute
bM143E11	RPCI-23	AL591967	2	Sanger Institute
bM144O20	RPCI-23	AL591490	2	Sanger Institute
bM152H17	RPCI-23	AL591905	2	Sanger Institute
bM161B3	RPCI-23	AL731698	2	Sanger Institute
bM183N8	RPCI-23	AL591884	2	Sanger Institute
bM188I17	RPCI-23	AL669917	2	Sanger Institute
bM190L21	RPCI-23	AL591970	2	Sanger Institute
bM19L12	RPCI-23	AL591711	2	Sanger Institute
bM206I14	RPCI-23	AL590418	2	Sanger Institute
bM215C14	RPCI-23	AL591607	2	Sanger Institute
bM216D20	RPCI-23	AL591911	2	Sanger Institute
bM217C2	RPCI-23	AL669906	2	Sanger Institute
bM235I24	RPCI-23	AL731671	2	Sanger Institute
bM272C14	RPCI-23	AL591598	2	Sanger Institute
bM272O14	RPCI-23	AL591606	2	Sanger Institute
bM28B10	RPCI-23	AL591936	2	Sanger Institute
bM305K11	RPCI-23	AL590414	2	Sanger Institute
bM321M14	RPCI-23	AL591542	2	Sanger Institute
bM326P18	RPCI-23	AL672196	2	Sanger Institute
bM327A19	RPCI-23	AL606473	2	Sanger Institute
bM333A18	RPCI-23	AL591665	2	Sanger Institute
bM335N12	RPCI-23	AL591584	2	Sanger Institute
bM338H13	RPCI-23	N/A	2	Sanger Institute
bM345I2	RPCI-23	AL626766	2	Sanger Institute
bM346D16	RPCI-23	AL591512	2	Sanger Institute
bM36P22	RPCI-23	AL591488	2	Sanger Institute
bM370H21	RPCI-23	AL591127	2	Sanger Institute
bM380K13	RPCI-23	AL592042	2	Sanger Institute
bM383K1	RPCI-23	AL732357	2	Sanger Institute
bM384K10	RPCI-23	AL590430	2	Sanger Institute
bM392O2	RPCI-23	AL596263	2	Sanger Institute

Clone name	Library	Sequence accession number	Chromosome	Sequenced by
bM393F23	RPCI-23	AL590389	2	Sanger Institute
bM395E18	RPCI-23	AL591064	2	Sanger Institute
bM401I8	RPCI-23	AL663062	2	Sanger Institute
bM41B10	RPCI-23	AL645766	2	Sanger Institute
bM41B20	RPCI-23	AL591430	2	Sanger Institute
bM420L2	RPCI-23	AL591675	2	Sanger Institute
bM428M13	RPCI-23	AL591411	2	Sanger Institute
bM429O12	RPCI-23	AL732312	2	Sanger Institute
bM443O6	RPCI-23	AL645827	2	Sanger Institute
bM448P12	RPCI-23	AL591703	2	Sanger Institute
bM462O16	RPCI-23	AL590429	2	Sanger Institute
bM465I6	RPCI-23	AL591762	2	Sanger Institute
bM466K24	RPCI-23	AL606841	2	Sanger Institute
bM471I9	RPCI-23	AL591673	2	Sanger Institute
bM474J7	RPCI-23	AL645736	2	Sanger Institute
bM479C2	RPCI-23	AL669913	2	Sanger Institute
bM480D17	RPCI-23	AL591763	2	Sanger Institute
bM53I23	RPCI-23	AL732362	2	Sanger Institute
bM53L16	RPCI-23	AL591882	2	Sanger Institute
bM61O3	RPCI-23	AL591495	2	Sanger Institute
bM79H8	RPCI-23	AL669836	2	Sanger Institute
bM90N15	RPCI-23	AL591805	2	Sanger Institute
bM97B17	RPCI-23	AL590415	2	Sanger Institute
bN223B6	RPCI-24	AL732310	2	Sanger Institute

Appendix 14: Exonic SNPs. Novel SNPs were submitted to dbSNP (http://www.ncbi.nlm.nih.gov/SNP/).

Clone	cSNP coordinates	Gene	Allele 1 (reference sequence)	Allele 2	Allele 2 supporting evidence (A) [b]	Allele 2 supporting evidence (B) [b]
dJ511B24	64,001	PLCG1	T	C	BF345779	AL045204
dJ511B24	73,832	TIX1	G	A	AW340006	AI885778
dJ511B24	73,854	TIX1	C	T	AI885778	BE856363
dJ511B24	80,265	TIX1	G	A	AI867932	AA969866
dJ620E11	2,329	LPIN3	A	T	BF055162	AI127104
dJ620E11	44,899	KIAA1335	G	A	AW235493	BF063641
dJ620E11	45,017	KIAA1335	T	G	AW235493	AI951142
dJ1121H13	93,709	PTPRT	G	A	R50970	F02638
dJ1121H13	95,065	PTPRT	G	A	AL138251	AW577442
dJ862K6	107,817	SFRS6	T	C	BE937954	AV758335
dJ138B7	73,871	C20orf9	G	A	BE788978	AV703478
dJ1028D15	93,173[a]	MYBL2	T	C	BE265253	AA356175
dJ1028D15	96,061	MYBL2	C	G	BG114635	AA496491
dJ179M20	135,657	PKIG	C	T	AI422674	AI679348
dJ179M20	135,660	PKIG	C	T	AW340090	AW167468
dJ179M20	135,869	PKIG	C	T	AI814404	BF109931
dJ179M20	135,879	PKIG	C	T	AI422674	BE328253
dJ179M20	135,890	PKIG	A	C	T77999	H51415
dJ179M20	14,353	TDE1	G	A	AW044595	AI188582
dJ179M20	14,482	TDE1	C	T	AI188582	BF111462
dJ179M20	14,497	TDE1	C	T	AI188582	AI299818
bA445H22	97,067	WISP2	C	T	AI807970	AI973060
dJ148E22	56,722	YWHAB	A	C	AU132709	BF306710
dJ148E22	60,103	YWHAB	T	A	BE709497	BE709825
dJ148E22	62,399	YWHAB	A	G	R19741	H12905
dJ148E22	62,943	YWHAB	C	T	AA167429	BE895870
dJ148E22	63,061	YWHAB	C	T	AV721832	AW955480
dJ1069P2	89,939	TOMM34	A	G	H75519	BE933215
dJ1069P2	94,339	C20orf119	G	A	AW967588	AI689512
dJ1069P2	94,345	C20orf119	G	A	BG152831	AW243900
dJ1069P2	95,369	C20orf119	T	C	AW954161	BE177459
dJ1069P2	100,623	C20orf119	C	T	AA251071	BF818192
dJ172H20	50,495	PI3	A	C	BF094327	BE772171
dJ172H20	51,122	PI3	C	T	BF002099	AI924155
dJ172H20	51,151	PI3	C	T	AW082097	AI807596
dJ300I2	27,359	SLPI	G	A	BE044073	AI222907
dJ453C12	36,688 [a]	SDC4	G	C	AA912436	W80465
dJ453C12	78,510	C20orf169	T	G	AV702492	BE781485
dJ453C12	78,642	C20orf169	G	T	AI343524	BF002486
dJ453C12	78,669	C20orf169	A	C	AI808184	AI681435
dJ453C12	78,762	C20orf169	C	T	BG116204	R55837
dJ453C12	79,096 [a]	C20orf169	C	T	AA258683	AI096624

Clone	cSNP coordinates	Gene	Allele 1 (reference sequence)	Allele 2	Allele 2 supporting evidence (A) [b]	Allele 2 supporting evidence (B) [b]
dJ453C12	79,870	C20orf169	A	G	AW994246	BE166488
dJ453C12	80,132 [a]	C20orf169	C	T	AI126562	T17223
dJ453C12	80,276 [a]	C20orf169	C	A	AI573128	AA258588
dJ453C12	121,204	C20orf35	A	G	BE908675	AW371128
dJ453C12	135,622	PIGT	G	A	AW370635	AW361708
dJ453C12	135,781	PIGT	C	T	AI907602	AI907608
dJ453C12	136,979 [a]	PIGT	T	C	BE869193	AA309604
dJ453C12	137,317	PIGT	A	C	AI201054	AW167891
dJ453C12	137,395	PIGT	A	C	AI670082	AI201054
dJ461P17	105,824	SLPINLW1	C	A	AA860417	AW182111
dJ461P17	119,487	C20orf170	T	C	AL449578	AL449581
dJ447F3	43,911	WFDC3	C	T	AI985094	AI243277
dJ447F3	61,679	C20orf167	G	A	AW250651	BF337137
dJ447F3	61,724	C20orf167	T	C	BE267410	AW250529
dJ447F3	92,943 [a]	TNNC2	T	C	AI313386	F30367
dJ447F3	93,739 [a]	TNNC2	C	A	W94954	F00841
dJ337O18	14,252	PTE1	G	A	AW025493	AI435343
dJ337O18	51,519	C20orf162	C	A	AL135265	R06780
dJ337O18	70,945	PPGB	C	T	AI924882	AW148956
dJ337O18	70,916	PPGB	C	A	AI818205	AW337488
bA465L10	34,279	C20orf67	T	C	AA865977	AI351098
bA465L10	34,427	C20orf67	A	C	AW516562	AI024388
bA465L10	98,002	MMP9	A	G	BE831794	T64837
bA465L10	100,183	MMP9	G	C	AA078733	AW838034
bA465L10	102,787	MMP9	C	T	AI075104	AI268673
bA465L10	102,880	MMP9	C	T	AI241706	AI819628
bA465L10	146,507	SLC12A5	G	A	R38486	H09108
bA465L10	147,505	NCOA5	G	A	AI148312	BE675918
bA394O2	47,862	KIAA1834	G	T	AI982596	AW449931
bA394O2	49,352	KIAA1834	A	G	AI933679	AI653338
dJ257E24	46,793 [a]	SLC13A3	A	G	AA808117	AI634218
dJ257E24	47,057	SLC13A3	C	A	AA558111	R50872
dJ28H20	2,734	C20orf64	G	A	AV648314	AV648389
dJ28H20	2,761	C20orf64	C	G	AV648314	AV648431
dJ28H20	48,458 [a]	SLC2A15	T	C	N44116	N40351
dJ890O2	28,401	EYA2	G	A	AW392633	AI368727
dJ890O15	28,475	EYA2	G	A	AW392633	AW392620
dJ890O2	28,507	EYA2	A	C	AW392629	BF060660
dJ890O2	64,289	PRKCBP1	A	G	AA102321	BE884364
dJ29M10B	2,058	PRKCBP1	C	T	T06694	AW498886
dJ29M10B	3,281	PRKCBP1	C	A	AA504355	AI671052
dJ1049G16	55,543	NCOA3	G	A	BE733896	BE902710
dJ1049G16	67,054	NCOA3	A	G	AF010227	AW503332
dJ1049G16	67,057	NCOA3	G	A	AA065271	AU138524
dJ1049G16	67,084	NCOA3	A	G	AF010227	AW502847

Clone	cSNP coordinates	Gene	Allele 1 (reference sequence)	Allele 2	Allele 2 supporting evidence (A) [b]	Allele 2 supporting evidence (B) [b]
dJ1049G16	71,448	NCOA3	C	G	AI808698	AW015672
dJ1049G16	71,612 [a]	NCOA3	A	T	AI808698	AI809327
dJ1049G16	71,620 [a]	NCOA3	G	A	AA229716	BE168160
bA347D21	12,833	bA347D21.1	C	T	AI954602	AA974244
bA347D21	45,157	bA347D21.4	T	C	AA972413	AI219998
bA269H4	52,232	KIAA1415	T	G	AW663740	AI204500
bA269H4	52,338	KIAA1415	C	A	AW039564	AA029710
bA269H4	52,481	KIAA1415	G	A	AI809960	AW663740
bA269H4	52,555	KIAA1415	G	A	AI810901	AI394548
bA269H4	52,577	KIAA1415	C	T	AI765687	AI204500
bA269H4	52,796	KIAA1415	C	T	AI459219	BF111136
bA269H4	53,056 [a]	KIAA1415	A	G	AW073339	AI204980
bA269H4	53,141	KIAA1415	C	G	T90531	T81327
bA269H4	53,287	KIAA1415	G	A	AW073339	AI638231
bA269H4	53,463	KIAA1415	C	A	BE729461	BF027564
bA269H4	64,588	KIAA1415	T	C	AB037836	AX018071
dJ998C11	2,266	KIAA1415	G	C	BF309614	BF204719
dJ155G6	36,373 [a]	ARFGEF2	A	G	AI873207	N23053
dJ155G6	37,064	ARFGEF2	A	C	AI741843	AI671441
dJ155G6	63,791	CSE1L	T	C	AL048759	L44546
dJ155G6	63,887	CSE1L	A	C	BF361281	AW386335
dJ470L14	16,598	CSE1L	C	T	AV723252	BE004378
dJ686N3	10,895 [a]	DDX27	C	T	BF305904	BE018458
dJ686N3	23,191	KIAA1404	T	G	AI139877	AI090233
dJ686N3	23,242	KIAA1404	G	A	BE219265	AI202444
dJ686N3	23,352	KIAA1404	G	A	AI085706	AI859676
dJ686N3	34,718	KIAA1404	A	G	T92574	W72798
dJ686N3	34,741	KIAA1404	G	C	BE837809	BF359333
dJ686N3	58,171	dJ686N3.3	C	G	N47913	H95224
dJ791K14	39,149	KCNB1	T	G	H84228	AA069746
dJ791K14	39,329	KCNB1	A	G	AI885070	AI360273
dJ1063B2	41,068	B4GALT5	T	C	AI039893	AA780169
dJ1063B2	41,840	B4GALT5	C	A	AA699676	AI248228
dJ1185N5	39,338	UBE2V1	G	A	AI373095	AI042109
dJ1185N5	39,348	UBE2V1	T	A	AW664872	AI499008
dJ1185N5	39,418	UBE2V1	T	G	AA603807	AW058376
dJ1185N5	82,102	UBE2V1	G	A	BF589921	AW235963

[a] These candidate cSNPs were previously identified by other SNP discovery projects and were not submitted to dbSNP.

[b] EMBL accession numbers for expressed sequences harbouring Allele 2 (only two shown -A, B- for clarity).

Appendix 15: Verified polymorphic SNPs across the region (MAF□5%). All SNPs reported have been genotyped in at least 13 Caucasian individuals. SNPs without a dbSNP identifier (rs#) are listed with their provisional Sanger Institute SNP identifier (G#).

Position	SNP	DNAs tested	A1	AF1	A2	AF2
4554	rs2425387	47	A	0.904	G	0.095
7185	rs2425388	38	C	0.052	T	0.947
8938	rs926258	47	A	0.797	G	0.202
9094	rs926259	46	A	0.815	C	0.184
11833	rs1033379	36	C	0.777	T	0.222
12992	rs2425392	42	A	0.095	G	0.904
14104	rs2425393	43	C	0.116	T	0.883
20038	rs2425398	34	C	0.882	T	0.117
29387	rs2179084	38	A	0.144	G	0.855
43257	rs1883146	47	C	0.585	T	0.414
60887	rs2010380	44	A	0.568	G	0.431
71032	rs1474568	42	G	0.88	T	0.119
81752	rs1883147	47	A	0.691	G	0.308
88376	rs1406965	32	C	0.562	T	0.437
89152	rs983835	46	G	0.554	T	0.445
145216	rs1570019	42	C	0.107	T	0.892
159817	rs911071	45	C	0.122	T	0.877
160893	rs1321337	35	A	0.142	G	0.857
162526	rs1321338	38	C	0.855	T	0.144
167256	rs1321339	41	A	0.841	G	0.158
172154	rs1358787	47	C	0.851	T	0.148
176776	rs1321333	44	A	0.511	G	0.488
197178	rs1980592	37	A	0.202	T	0.797
197774	rs2870432	44	C	0.625	G	0.375
198768	rs1406964	35	C	0.7	T	0.3
202151	rs1004483	45	A	0.944	G	0.055
217514	G3943295	38	C	0.684	G	0.315
230663	G3956444	41	A	0.378	G	0.621
316161	rs2224282	47	C	0.861	G	0.138
318642	rs1535209	47	G	0.851	T	0.148
319722	rs980355	45	A	0.855	G	0.144
327061	G4052842	42	C	0.845	G	0.154
334900	G4060681	42	C	0.892	T	0.107
357971	G4083752	36	C	0.694	T	0.305
394049	G4119830	46	A	0.054	G	0.945
418621	rs2902940	33	A	0.651	G	0.348
442762	rs926728	14	A	0.178	G	0.821
449916	rs2207135	46	A	0.358	C	0.641
470432	rs1022581	45	G	0.644	T	0.355
500961	rs1883713	38	A	0.276	G	0.723
503981	rs2903023	39	A	0.628	T	0.371
546194	G4271975	45	G	0.3	T	0.7
572909	rs926663	25	A	0.72	G	0.28
582682	G4308463	36	G	0.625	T	0.375
597902	G4323683	35	C	0.6	T	0.4
613920	rs910135	19	A	0.736	G	0.263
625118	rs882192	47	C	0.148	G	0.851
625324	rs882191	43	C	0.848	T	0.151
634797	rs742745	46	G	0.902	T	0.097
641804	rs3577	33	A	0.075	G	0.924
653649	rs932440	46	A	0.086	G	0.913
661618	rs2425419	38	A	0.407	G	0.592
664907	rs742742	42	A	0.785	G	0.214
666908	rs2064406	41	A	0.17	C	0.829
669926	rs1883839	43	A	0.906	G	0.093
670212	rs1883841	37	A	0.918	T	0.081
672400	rs2425421	38	A	0.684	G	0.315
674491	rs2425425	38	G	0.315	T	0.684
679318	rs2425429	39	C	0.32	T	0.679
684599	rs723080	44	A	0.454	G	0.545
684831	rs723081	46	G	0.413	T	0.586
694631	rs2425447	24	C	0.395	T	0.604
696403	rs2425451	39	C	0.692	T	0.307
700961	rs2050204	29	A	0.275	G	0.724
701132	rs2064346	46	C	0.597	T	0.402
702826	rs732961	40	A	0.787	G	0.212
704415	rs1883702	43	A	0.627	G	0.372
706329	rs2903114	40	A	0.325	T	0.675
707799	rs974672	44	C	0.625	G	0.375
708884	rs1007563	37	A	0.445	T	0.554
710513	rs2206670	38	A	0.157	G	0.842
714991	rs1160307	40	A	0.825	G	0.175
715348	rs1014748	45	C	0.855	T	0.144
721866	rs2143513	47	A	0.861	G	0.138
725306	rs2206665	46	C	0.858	T	0.141
729663	rs1535025	47	A	0.393	G	0.606
737670	rs742912	47	A	0.872	C	0.127
738283	rs761566	46	G	0.076	T	0.923
746107	rs1546905	40	A	0.075	G	0.925
751407	rs2206663	43	A	0.593	C	0.406
755956	rs2223657	47	C	0.382	T	0.617
764791	rs2206662	46	C	0.663	T	0.336
789607	rs932489	46	C	0.597	T	0.402
792672	rs2865899	46	C	0.565	T	0.434
802273	rs1000349	28	A	0.232	G	0.767
814352	rs1005534	40	A	0.1	G	0.9
821901	G4547682	43	A	0.476	G	0.523
831903	rs1884101	37	C	0.459	T	0.54
847921	G4573702	41	C	0.5	T	0.5
853184	rs2425452	37	A	0.121	G	0.878

Position	SNP	DNAs tested	A1	AF1	A2	AF2
894908	G4620689	43	C	0.825	T	0.174
904876	rs2207309	47	C	0.244	T	0.755
906767	rs1548244	39	A	0.846	G	0.153
918789	rs2425458	36	G	0.75	T	0.25
926135	rs1980479	47	A	0.223	G	0.776
938936	rs734532	46	C	0.336	T	0.663
942079	rs2011809	42	A	0.297	G	0.702
961500	rs1000410	47	C	0.585	G	0.414
968651	rs1883511	47	A	0.914	C	0.085
994200	G4719981	30	G	0.183	T	0.816
1040486	rs2076576	47	G	0.191	T	0.808
1047964	rs2076575	38	C	0.184	T	0.815
1062430	G4788211	38	C	0.276	T	0.723
1099081	rs926345	47	C	0.553	T	0.446
1115071	rs2072881	45	C	0.355	T	0.644
1124599	rs753381	36	C	0.555	T	0.444
1140863	rs2664537	39	A	0.192	G	0.807
1157256	rs2235367	43	A	0.43	G	0.569
1204879	rs1543324	46	C	0.554	T	0.445
1224157	rs1540908	39	C	0.474	T	0.525
1237238	rs1018389	46	C	0.445	G	0.554
1245391	G4971172	42	C	0.535	G	0.464
1253467	G4979248	42	C	0.892	G	0.107
1335364	G5061145	44	A	0.125	G	0.875
1350180	G5075961	46	C	0.782	T	0.217
1357254	G5083035	44	C	0.636	T	0.363
1368612	rs742434	44	A	0.284	G	0.715
1375774	G5101555	40	C	0.325	T	0.675
1383770	rs761024	47	A	0.382	C	0.617
1403642	rs909882	47	C	0.095	T	0.904
1426098	rs2143227	44	C	0.681	T	0.318
1439033	rs2143228	45	A	0.277	G	0.722
1439621	rs2072970	23	C	0.673	T	0.326
1445038	rs2143229	20	A	0.05	G	0.95
1452592	rs742431	43	A	0.302	C	0.697
1456363	rs1010901	46	C	0.228	G	0.771
1471412	rs967083	22	C	0.818	T	0.181
1479616	G5205397	42	A	0.214	G	0.785
1489747	rs987343	39	C	0.102	G	0.897
1490588	rs2866742	40	A	0.287	G	0.712
1498079	G5223860	43	C	0.127	T	0.872
1512397	rs2272959	46	A	0.913	G	0.086
1518785	rs2294579	45	C	0.077	G	0.922
1533029	rs2143232	47	C	0.287	T	0.712
1557352	rs2903379	45	A	0.244	G	0.755
1574654	G5300435	32	A	0.125	C	0.875
1604327	G5330108	40	C	0.95	T	0.05
1617939	rs941796	15	A	0.3	G	0.7
1648420	rs1885174	39	A	0.743	C	0.256
1657495	rs2866705	47	C	0.436	T	0.563
1678813	rs2866707	41	C	0.817	T	0.182
1708376	rs2038525	26	A	0.942	T	0.057
1709373	rs2057343	39	A	0.205	C	0.794
1726391	rs1465122	44	C	0.772	T	0.227
1750115	rs2208523	43	C	0.767	T	0.232
1796399	G5522180	42	C	0.833	T	0.166
1806636	rs2866823	43	A	0.406	G	0.593
1809842	rs2866824	45	C	0.566	T	0.433
1814245	rs2211353	39	G	0.666	T	0.333
1829405	rs1543344	44	C	0.795	G	0.204
1851605	rs2076394	38	A	0.447	C	0.552
1853697	rs926477	47	A	0.17	G	0.829
1870460	rs1569602	23	C	0.152	T	0.847
1874449	rs2206413	27	C	0.851	T	0.148
1879025	rs2206414	35	A	0.542	G	0.457
1894256	rs2050083	25	A	0.58	G	0.42
1898650	rs926478	45	A	0.088	G	0.911
1918558	rs2425465	37	A	0.905	G	0.094
1928154	rs1000337	31	C	0.79	T	0.209
1931677	rs2866986	41	A	0.378	C	0.621
1935741	rs875791	35	C	0.471	T	0.528
1975294	rs2223912	44	C	0.056	T	0.943
1985051	rs2223913	39	A	0.897	G	0.102
1993634	rs2207219	45	C	0.388	T	0.611
1996863	rs2207220	45	C	0.766	T	0.233
2001918	rs748526	43	A	0.639	G	0.36
2006871	rs2144006	45	A	0.6	T	0.4
2015649	G5741430	41	A	0.634	G	0.365
2023360	rs1010377	45	C	0.633	T	0.366
2024905	rs733673	41	A	0.353	C	0.646
2028589	rs2596	40	A	0.937	G	0.062
2029945	rs2664587	31	A	0.435	G	0.564
2033370	rs1884039	33	C	0.712	T	0.287
2033428	rs877431	44	C	0.261	T	0.738
2035012	rs2866943	46	C	0.76	T	0.239
2038778	rs750782	46	A	0.38	G	0.619
2041130	rs2072913	36	A	0.638	G	0.361
2045292	rs1126101	41	A	0.585	G	0.414
2047007	rs2866947	21	A	0.738	G	0.261
2048086	rs2425470	37	G	0.283	T	0.716
2057648	rs2425473	40	C	0.362	T	0.637
2063797	rs2425478	39	C	0.32	T	0.679
2068970	rs742293	42	C	0.702	T	0.297
2086583	G5812364	44	C	0.068	T	0.931
2097057	rs2076241	26	A	0.5	G	0.5
2117570	rs2867061	46	G	0.576	T	0.423

Position	SNP	DNAs tested	A1	AF1	A2	AF2
2117766	rs2867062	47	A	0.414	C	0.585
2129393	rs2223424	47	G	0.787	T	0.212
2132140	rs2143008	33	A	0.409	G	0.59
2134051	rs873538	47	C	0.212	T	0.787
2135798	rs2903465	42	A	0.619	T	0.38
2135865	rs2867063	47	A	0.361	G	0.638
2144981	rs932358	47	C	0.574	T	0.425
2149546	rs979634	30	C	0.45	T	0.55
2181755	rs926647	45	G	0.422	T	0.577
2206264	rs1984399	47	A	0.425	G	0.574
2211762	rs727337	38	A	0.421	T	0.578
2220892	G5946673	42	A	0.559	G	0.44
2251124	G5976905	40	C	0.762	T	0.237
2283026	G6008807	26	A	0.557	G	0.442
2291285	rs763474	41	A	0.451	C	0.548
2306563	rs929071	47	C	0.776	T	0.223
2323710	rs2867437	41	A	0.5	C	0.5
2333691	rs1156500	37	C	0.864	G	0.135
2336119	rs1155382	47	C	0.095	G	0.904
2339182	rs916325	40	C	0.637	G	0.362
2349397	rs2425484	41	C	0.134	T	0.865
2362723	rs932320	39	A	0.115	T	0.884
2371615	rs1883269	39	A	0.82	G	0.179
2372943	rs2179217	46	A	0.163	G	0.836
2380014	rs978457	47	C	0.308	T	0.691
2388003	G6113784	40	C	0.225	G	0.775
2397665	rs760703	46	A	0.206	G	0.793
2403672	rs2076081	47	C	0.372	G	0.627
2435278	rs126180	45	C	0.944	T	0.055
2437054	rs230155	45	A	0.133	G	0.866
2441473	rs230158	47	A	0.053	G	0.946
2460772	rs230165	40	A	0.3	G	0.7
2463694	rs2205939	47	A	0.063	G	0.936
2466037	rs230170	47	C	0.946	T	0.053
2477389	G6203170	42	C	0.059	T	0.94
2488646	rs986830	47	C	0.234	G	0.765
2497071	rs2867484	47	C	0.351	T	0.648
2500464	rs2224166	41	G	0.426	T	0.573
2515451	G6241232	46	A	0.51	G	0.489
2537879	rs764444	41	A	0.414	G	0.585
2545205	rs1015387	47	A	0.819	G	0.18
2550195	rs1883842	44	G	0.329	T	0.67
2551695	rs722556	18	A	0.555	G	0.444
2558099	rs2206905	30	A	0.9	T	0.1
2559658	rs2057074	47	A	0.212	C	0.787
2566051	rs877440	29	G	0.086	T	0.913
2579381	rs874921	47	A	0.829	C	0.17
2580132	rs909862	45	A	0.166	G	0.833

Position	SNP	DNAs tested	A1	AF1	A2	AF2
2583901	rs997893	45	A	0.355	G	0.644
2591533	rs2867490	47	C	0.372	T	0.627
2603355	rs1157668	40	A	0.25	T	0.75
2605363	rs2425500	45	C	0.711	T	0.288
2610109	rs2425503	43	A	0.488	G	0.511
2617371	G6343152	28	C	0.339	T	0.66
2635865	rs2206428	37	C	0.743	T	0.256
2647357	rs2425528	47	A	0.829	G	0.17
2658009	rs926481	42	C	0.107	T	0.892
2661715	rs742420	42	C	0.75	T	0.25
2664443	rs1040481	47	A	0.712	G	0.287
2670739	rs976249	46	C	0.097	G	0.902
2686025	G6411806	36	A	0.902	G	0.097
2696722	rs1022819	22	A	0.84	G	0.159
2699553	rs2867554	33	C	0.06	T	0.939
2704999	rs2038668	38	C	0.75	T	0.25
2729339	rs2867555	39	A	0.756	G	0.243
2733627	rs2146615	36	C	0.666	T	0.333
2734195	rs980929	47	A	0.521	G	0.478
2739710	rs1973949	42	A	0.416	G	0.583
2741210	rs208254	43	A	0.523	C	0.476
2744591	rs208248	29	C	0.344	G	0.655
2748169	rs208243	18	A	0.888	C	0.111
2750589	rs68049	38	A	0.236	G	0.763
2770522	rs208219	41	A	0.329	G	0.67
2772116	rs208220	41	A	0.304	G	0.695
2806215	rs208262	34	A	0.5	G	0.5
2811818	rs208268	45	C	0.833	T	0.166
2816214	rs208269	47	C	0.234	T	0.765
2822030	rs208274	40	A	0.787	T	0.212
2827812	rs208186	43	G	0.267	T	0.732
2828293	rs208187	46	A	0.771	G	0.228
2829817	rs172303	35	C	0.785	G	0.214
2833075	rs208195	43	A	0.72	C	0.279
2886731	rs761026	42	A	0.726	C	0.273
2926128	G6651909	44	A	0.829	C	0.17
2936321	rs2867591	47	A	0.191	G	0.808
2950271	rs2223558	38	A	0.184	C	0.815
2953774	rs2206456	29	A	0.344	C	0.655
2960216	rs2294591	29	A	0.741	T	0.258
2973694	rs2223556	39	A	0.705	G	0.294
2976180	rs206150	47	C	0.287	T	0.712
2978981	rs206156	47	C	0.18	T	0.819
2984149	rs206162	47	C	0.819	G	0.18
2990143	rs2208048	41	A	0.207	T	0.792
2990594	rs2224259	47	C	0.819	T	0.18
2996596	rs2425552	44	C	0.818	T	0.181
2998906	rs2425559	45	A	0.822	G	0.177

Position	SNP	DNAs tested	A1	AF1	A2	AF2
2999004	rs2425561	44	C	0.829	T	0.17
3001641	rs910829	26	C	0.134	G	0.865
3003275	rs2425567	47	C	0.191	G	0.808
3009655	rs984962	30	C	0.15	T	0.85
3019388	rs755149	47	A	0.127	G	0.872
3021342	rs985693	47	C	0.755	T	0.244
3021882	rs2425578	42	C	0.809	T	0.19
3031763	rs990773	34	C	0.676	T	0.323
3041698	rs1006746	47	C	0.67	T	0.329
3053856	rs2425589	44	C	0.625	G	0.375
3055675	rs2425591	43	G	0.627	T	0.372
3057442	rs927058	47	A	0.478	G	0.521
3061721	rs2425599	47	A	0.446	C	0.553
3066559	rs2425608	42	A	0.345	G	0.654
3075264	G6801045	46	A	0.684	G	0.315
3085102	rs1572925	39	C	0.705	G	0.294
3102651	G6828432	44	A	0.625	G	0.375
3133994	rs2425614	41	C	0.829	T	0.17
3141297	rs926288	27	C	0.87	T	0.129
3143846	rs2235206	46	A	0.793	G	0.206
3157402	rs2205773	46	A	0.152	G	0.847
3166458	G6892239	42	A	0.88	G	0.119
3216500	rs760630	39	A	0.064	T	0.935
3241997	G6967778	40	A	0.85	G	0.15
3258734	rs926294	45	C	0.655	T	0.344
3274561	rs926291	32	A	0.546	G	0.453
3284053	G7009834	41	A	0.353	G	0.646
3293069	G7018850	41	C	0.097	T	0.902
3300323	G7026104	41	A	0.719	G	0.28
3309831	rs909892	47	C	0.904	T	0.095
3338938	rs1883544	47	C	0.606	T	0.393
3345192	rs1569623	45	A	0.6	G	0.4
3363024	rs1997749	46	C	0.51	T	0.489
3386746	rs941441	39	C	0.448	G	0.551
3449593	rs765148	47	A	0.585	G	0.414
3486339	rs2285186	47	A	0.074	G	0.925
3488095	rs2071969	46	C	0.902	T	0.097
3490901	rs2071968	47	C	0.648	G	0.351
3494369	rs2269625	39	A	0.769	G	0.23
3505689	rs2269622	47	C	0.531	G	0.468
3506578	rs3205	47	C	0.095	T	0.904
3513356	rs763228	47	C	0.744	G	0.255
3523683	rs2067061	42	A	0.666	C	0.333
3532194	rs763227	38	A	0.789	G	0.21
3543780	rs1055334	38	A	0.184	G	0.815
3552247	rs2664519	19	A	0.684	G	0.315
3586769	rs714998	44	C	0.818	T	0.181
3591859	rs2273523	32	C	0.828	T	0.171

Position	SNP	DNAs tested	A1	AF1	A2	AF2
3602632	rs393115	27	A	0.907	C	0.092
3606275	rs285191	34	A	0.102	G	0.897
3608967	rs285194	44	A	0.159	G	0.84
3618700	rs396373	47	A	0.627	G	0.372
3619094	rs385345	47	C	0.202	T	0.797
3623777	rs285205	38	A	0.118	C	0.881
3637642	rs442143	46	C	0.902	T	0.097
3638988	rs387769	46	A	0.097	G	0.902
3655772	rs285162	47	C	0.946	T	0.053
3657097	rs285167	47	A	0.063	G	0.936
3658590	rs2070235	37	A	0.905	G	0.094
3665008	rs285171	47	C	0.127	G	0.872
3667817	rs285172	47	A	0.872	G	0.127
3686616	rs371484	47	A	0.925	G	0.074
3690239	rs285197	47	C	0.808	T	0.191
3714831	rs244071	47	G	0.17	T	0.829
3739421	G7465202	46	C	0.869	T	0.13
3758171	rs244066	38	A	0.184	G	0.815
3780143	rs2235765	39	A	0.833	G	0.166
3798617	G7524398	39	A	0.128	C	0.871
3848704	rs1569697	40	C	0.437	T	0.562
3878621	rs1569698	41	C	0.268	T	0.731
3882692	rs1076723	47	C	0.159	T	0.84
3890704	rs916474	44	A	0.136	G	0.863
3893142	rs1888982	40	A	0.15	G	0.85
3904495	rs761919	47	A	0.585	G	0.414
3925293	rs736992	47	C	0.84	G	0.159
3933353	G7659134	44	G	0.829	T	0.17
3954237	rs1980578	21	C	0.119	T	0.88
3956870	rs1547002	45	A	0.666	G	0.333
3973965	G7699746	45	C	0.311	G	0.688
3987419	rs2179593	46	A	0.728	C	0.271
3995666	rs1040545	41	C	0.243	T	0.756
3996896	rs1555118	47	C	0.265	T	0.734
4006324	G7732105	43	A	0.255	G	0.744
4020783	rs2143495	46	A	0.25	G	0.75
4025984	rs1555124	46	C	0.673	G	0.326
4037628	rs1883682	46	C	0.326	T	0.673
4047232	rs932415	45	A	0.8	C	0.2
4054623	rs1883684	47	A	0.468	G	0.531
4070587	G7796368	41	A	0.658	G	0.341
4078168	rs2038168	46	C	0.75	T	0.25
4090850	rs969570	17	A	0.235	G	0.764
4102809	rs761205	46	A	0.282	G	0.717
4110645	rs2057029	47	A	0.691	G	0.308
4110678	rs2143494	31	A	0.516	G	0.483
4119262	rs2425630	44	A	0.261	G	0.738
4135042	rs738498	44	A	0.465	G	0.534

Position	SNP	DNAs tested	A1	AF1	A2	AF2
4142323	rs1883790	28	A	0.892	G	0.107
4152620	rs9875	46	C	0.369	T	0.63
4157331	rs1474753	43	C	0.127	T	0.872
4162890	rs2232286	46	C	0.097	T	0.902
4164259	rs956610	46	A	0.119	G	0.88
4164490	rs1007125	47	A	0.127	G	0.872
4166537	rs731498	45	A	0.822	G	0.177
4166594	rs731499	40	C	0.737	T	0.262
4184909	G7910690	42	C	0.119	T	0.88
4195279	rs2867799	40	C	0.875	T	0.125
4209342	G7935123	43	C	0.058	T	0.941
4218942	rs2293	47	C	0.787	G	0.212
4227781	G7953562	43	G	0.802	T	0.197
4244900	rs2868090	38	A	0.815	T	0.184
4266559	G7992340	44	G	0.806	T	0.193
4280248	G8006029	36	C	0.875	T	0.125
4293158	rs1884612	38	C	0.289	T	0.71
4312850	rs2144908	40	A	0.187	G	0.812
4350974	rs2425635	33	A	0.5	G	0.5
4352917	rs717247	42	A	0.678	G	0.321
4353762	rs2425638	41	C	0.109	T	0.89
4356418	rs1800963	47	A	0.319	C	0.68
4361826	rs745975	44	A	0.284	G	0.715
4366173	rs1885088	33	A	0.227	G	0.772
4366396	rs1885089	47	C	0.765	T	0.234
4378114	rs1028584	28	A	0.303	C	0.696
4450161	rs1983	44	A	0.59	G	0.409
4455136	rs6606	37	C	0.918	T	0.081
4489604	G8215385	46	A	0.195	G	0.804
4496763	rs244128	47	C	0.574	G	0.425
4499257	rs244127	46	G	0.119	T	0.88
4507748	rs2425648	40	G	0.787	T	0.212
4511112	rs244125	38	A	0.802	C	0.197
4516411	rs244123	15	C	0.166	T	0.833
4522838	rs244120	29	A	0.051	G	0.948
4543469	rs244107	40	A	0.812	C	0.187
4543614	rs244106	47	C	0.18	G	0.819
4552599	rs244099	44	A	0.84	T	0.159
4570678	rs1061662	45	C	0.844	T	0.155
4572324	rs244082	28	C	0.16	T	0.839
4574528	rs2664557	32	C	0.906	T	0.093
4577724	rs244079	45	C	0.055	T	0.944
4578900	rs929089	42	C	0.892	T	0.107
4587792	rs395209	47	A	0.936	T	0.063
4590169	rs371927	47	C	0.17	T	0.829
4594398	rs446125	45	A	0.222	C	0.777
4598525	rs406383	43	C	0.639	G	0.36
4602134	rs2299686	46	A	0.521	G	0.478

Position	SNP	DNAs tested	A1	AF1	A2	AF2
4618353	rs2903744	47	C	0.574	G	0.425
4639530	rs912914	36	C	0.875	T	0.125
4640727	rs912921	47	A	0.67	C	0.329
4656140	rs2148041	44	C	0.568	T	0.431
4673118	G8398899	30	A	0.116	G	0.883
4697239	rs1555299	47	C	0.351	T	0.648
4723347	rs1078342	36	A	0.625	G	0.375
4740331	rs1080026	15	A	0.8	C	0.2
4755456	rs1117080	39	C	0.666	G	0.333
4757623	rs1555300	42	A	0.404	G	0.595
4763024	rs1123402	21	C	0.523	G	0.476
4772599	G8498380	43	C	0.558	G	0.441
4782878	rs2903760	47	C	0.574	T	0.425
4822621	rs2903761	47	C	0.68	G	0.319
4843289	rs2239535	45	A	0.188	G	0.811
4844334	rs2284266	45	A	0.788	G	0.211
4850897	rs2253712	47	C	0.308	T	0.691
4853270	rs2425672	47	A	0.478	G	0.521
4857367	rs4931	45	A	0.788	C	0.211
4863588	rs8356	26	C	0.865	T	0.134
4863706	rs2664577	25	C	0.84	T	0.16
4868316	rs2235172	39	C	0.217	G	0.782
4874810	rs2075960	47	G	0.234	T	0.765
4886042	rs1998033	47	A	0.436	G	0.563
4888666	rs2664567	45	C	0.866	T	0.133
4892168	rs2273358	42	A	0.107	G	0.892
4893920	rs11780	33	C	0.409	T	0.59
4899350	rs2234209	26	A	0.73	G	0.269
4900686	rs2284267	31	A	0.709	C	0.29
4907251	rs1079900	36	C	0.402	T	0.597
4916174	rs2234197	42	C	0.785	T	0.214
4925838	rs927000	30	A	0.15	G	0.85
4929054	rs910671	25	A	0.42	C	0.58
4936111	rs2267857	45	C	0.477	G	0.522
4949236	rs2903772	33	G	0.454	T	0.545
4958360	rs1015520	33	C	0.09	T	0.909
4958569	rs1015519	47	C	0.521	T	0.478
4971164	rs2284272	39	C	0.153	T	0.846
4973303	rs2299975	45	C	0.522	T	0.477
4976059	rs2010195	34	C	0.147	T	0.852
5004917	rs2284274	41	A	0.512	T	0.487
5009084	rs2284275	44	C	0.522	T	0.477
5012643	rs1894572	44	C	0.465	T	0.534
5025305	rs2267862	47	G	0.468	T	0.531
5042321	rs1003855	46	C	0.456	T	0.543
5047118	rs1540310	47	C	0.531	G	0.468
5050760	rs734784	46	A	0.554	G	0.445
5063666	rs916311	47	G	0.617	T	0.382

Position	SNP	DNAs tested	A1	AF1	A2	AF2
5067623	rs2157360	47	C	0.414	G	0.585
5081551	G8807332	42	C	0.19	T	0.809
5108041	rs2207199	37	C	0.256	T	0.743
5131655	rs2664581	27	A	0.888	C	0.111
5138094	rs1997892	47	A	0.18	T	0.819
5143726	rs1007137	43	C	0.232	T	0.767
5160265	G8886046	39	C	0.82	T	0.179
5209139	rs2206888	32	A	0.812	G	0.187
5225272	rs991049	40	A	0.775	G	0.225
5225360	rs991048	47	A	0.808	G	0.191
5269809	rs2076026	47	A	0.946	G	0.053
5273901	rs736389	47	C	0.17	T	0.829
5284643	rs985586	40	C	0.725	T	0.275
5286005	rs2070638	47	C	0.51	T	0.489
5291421	rs2072792	37	A	0.5	G	0.5
5293036	rs2267867	44	A	0.784	G	0.215
5302262	rs2741450	37	A	0.5	T	0.5
5302584	rs1981431	44	A	0.477	C	0.522
5303940	rs2078423	41	A	0.402	G	0.597
5323013	rs2245717	31	G	0.854	T	0.145
5323145	rs2664543	42	G	0.297	T	0.702
5323265	rs2664583	45	C	0.288	T	0.711
5323599	rs707576	43	C	0.267	T	0.732
5324373	rs2248637	46	A	0.152	G	0.847
5365707	rs2243553	46	A	0.13	G	0.869
5372703	rs1028307	39	A	0.192	C	0.807
5380125	rs13217	47	A	0.489	G	0.51
5381482	rs707577	34	C	0.764	T	0.235
5392942	rs2741553	46	A	0.467	G	0.532
5401683	rs2745065	37	C	0.067	T	0.932
5412593	rs1016496	36	C	0.152	T	0.847
5421508	rs973446	47	C	0.925	G	0.074
5452896	rs2868301	45	C	0.633	T	0.366
5497845	rs11594	43	A	0.79	C	0.209
5505718	rs2050095	31	C	0.306	T	0.693
5508856	rs2294559	47	A	0.67	G	0.329
5511508	rs2250860	46	C	0.336	T	0.663
5515056	rs1569612	43	C	0.313	T	0.686
5518157	rs909879	40	A	0.537	G	0.462
5518901	rs1977096	47	A	0.329	C	0.67
5552111	rs2425707	47	A	0.404	G	0.595
5554454	rs2425709	46	A	0.347	G	0.652
5564120	rs1487320	46	C	0.543	G	0.456
5570975	rs2072973	46	A	0.543	G	0.456
5585876	rs1157672	20	C	0.25	T	0.75
5587812	rs1825776	44	C	0.613	T	0.386
5592051	rs1005456	42	A	0.63	G	0.369
5622944	rs1487318	43	A	0.616	G	0.383

Position	SNP	DNAs tested	A1	AF1	A2	AF2
5640124	rs1825775	44	C	0.67	T	0.329
5641742	rs232729	34	A	0.323	G	0.676
5657724	rs714595	46	A	0.206	G	0.793
5659431	rs432448	15	A	0.7	C	0.3
5661527	rs232291	37	G	0.472	T	0.527
5679873	rs1487317	40	C	0.6	T	0.4
5681520	rs232259	40	G	0.4	T	0.6
5682313	rs761810	45	A	0.611	G	0.388
5705703	rs380421	39	A	0.423	G	0.576
5707597	rs454874	40	A	0.325	G	0.675
5729995	rs2664529	45	C	0.366	T	0.633
5745597	rs411945	35	C	0.271	G	0.728
5747763	rs2664539	30	A	0.716	G	0.283
5765425	rs399672	46	C	0.315	T	0.684
5766100	rs390386	38	A	0.605	C	0.394
5773195	rs445503	25	A	0.6	C	0.4
5779823	rs369138	44	A	0.522	C	0.477
5784475	rs383112	41	A	0.487	G	0.512
5802539	rs174745	46	C	0.543	T	0.456
5814890	rs722669	44	C	0.5	G	0.5
5833099	rs2903808	46	C	0.532	T	0.467
5844486	rs1516580	42	A	0.523	G	0.476
5849131	rs742034	45	A	0.477	G	0.522
5857964	rs553359	26	A	0.442	C	0.557
5866618	rs441346	41	C	0.414	G	0.585
5867304	rs394643	28	C	0.392	T	0.607
5890133	rs1057208	38	C	0.828	T	0.171
5904440	rs3363	47	C	0.851	T	0.148
5919490	G9645271	44	C	0.863	T	0.136
5951093	rs1888235	43	C	0.825	T	0.174
5959493	G9685274	43	A	0.174	G	0.825
5967351	rs2664538	33	A	0.651	G	0.348
5972136	rs20544	32	C	0.546	T	0.453
5985422	rs2868364	18	A	0.388	G	0.611
6015125	rs1128536	34	A	0.294	G	0.705
6018476	rs1537028	42	G	0.297	T	0.702
6034490	rs1406826	36	A	0.486	G	0.513
6041530	rs1950174	47	A	0.148	C	0.851
6044872	rs2206892	43	C	0.883	T	0.116
6053363	rs1569722	43	C	0.674	T	0.325
6059872	rs1358719	35	A	0.671	G	0.328
6069190	rs1569723	28	A	0.946	C	0.053
6073529	rs1800686	47	A	0.276	G	0.723
6073864	rs752118	37	C	0.716	T	0.283
6075225	rs1535045	43	C	0.686	T	0.313
6086292	rs2143699	47	A	0.085	G	0.914
6094850	rs1535043	38	A	0.407	T	0.592
6124047	rs2425760	38	A	0.118	T	0.881

Position	SNP	DNAs tested	A1	AF1	A2	AF2
6132564	G9858345	43	G	0.662	T	0.337
6151750	rs2868767	38	A	0.828	G	0.171
6166448	rs2425785	44	C	0.386	G	0.613
6181719	rs2092384	36	C	0.944	G	0.055
6201464	G9927245	45	A	0.2	G	0.8
6214726	rs2425809	47	C	0.478	T	0.521
6219351	rs2425811	45	G	0.477	T	0.522
6225016	rs2425825	47	A	0.51	G	0.489
6239080	rs2425856	47	A	0.446	G	0.553
6248983	rs2425859	19	C	0.684	T	0.315
6255855	rs2425861	44	G	0.363	T	0.636
6274892	rs2425863	47	C	0.627	T	0.372
6276873	rs2180911	41	C	0.365	T	0.634
6277977	rs2425866	44	C	0.363	T	0.636
6280775	rs1998253	36	A	0.319	T	0.68
6293784	rs2869219	39	C	0.294	T	0.705
6323431	rs2297057	18	C	0.833	T	0.166
6335855	rs2260959	44	A	0.943	G	0.056
6403741	rs391117	44	C	0.261	T	0.738
6411300	rs593048	42	C	0.202	T	0.797
6423036	rs678086	38	A	0.21	C	0.789
6438755	rs457918	46	C	0.13	T	0.869
6446155	rs438687	44	A	0.897	T	0.102
6450547	rs464406	46	C	0.195	T	0.804
6452419	rs460067	40	C	0.837	G	0.162
6461292	rs1880899	39	C	0.205	T	0.794
6463570	rs2780231	37	C	0.459	T	0.54
6478399	rs847104	44	A	0.795	G	0.204
6480329	rs1527139	38	A	0.776	G	0.223
6485576	rs202370	33	C	0.393	G	0.606
6492984	rs202380	47	A	0.18	G	0.819
6496931	rs2411	43	A	0.825	G	0.174
6514631	rs10218	45	A	0.311	C	0.688
6517500	rs847062	42	C	0.821	T	0.178
6518827	rs847063	41	C	0.402	T	0.597
6520115	rs847065	44	A	0.625	G	0.375
6522030	rs202391	42	C	0.809	G	0.19
6524341	rs847069	45	C	0.411	T	0.588
6525657	rs436978	42	A	0.214	G	0.785
6531392	rs1880898	40	C	0.425	T	0.575
6532608	rs413635	21	A	0.761	G	0.238
6537213	rs202388	43	C	0.43	T	0.569
6539581	rs389905	47	G	0.414	T	0.585
6539746	rs863675	46	C	0.054	T	0.945
6549477	rs85024	38	C	0.828	T	0.171
6550764	rs431072	46	C	0.521	T	0.478
6565338	rs383551	30	G	0.716	T	0.283
6566882	rs2141113	20	C	0.25	G	0.75

Position	SNP	DNAs tested	A1	AF1	A2	AF2
6569062	rs847084	37	A	0.351	T	0.648
6569395	rs2273024	47	C	0.297	G	0.702
6571758	rs847100	13	A	0.538	G	0.461
6583050	rs847071	39	C	0.358	T	0.641
6584310	rs761215	44	C	0.534	T	0.465
6588167	rs941206	46	G	0.108	T	0.891
6605295	rs1004571	37	A	0.31	G	0.689
6617100	rs1204641	47	A	0.063	G	0.936
6627222	rs1011074	46	A	0.108	G	0.891
6645195	rs2664574	25	C	0.92	G	0.08
6677640	rs2425901	35	A	0.285	C	0.714
6677706	rs2425902	45	A	0.733	G	0.266
6684002	rs2425904	26	C	0.692	T	0.307
6687345	rs2425911	41	C	0.743	G	0.256
6690892	rs707507	41	C	0.365	T	0.634
6698210	rs2179357	37	C	0.351	T	0.648
6705287	G10431068	43	C	0.453	T	0.546
6720442	rs760874	46	A	0.13	G	0.869
6721346	rs976938	45	A	0.633	G	0.366
6724642	rs1997711	43	A	0.418	G	0.581
6729945	rs760877	36	A	0.166	C	0.833
6747631	G10473412	41	C	0.5	T	0.5
6755198	G10480979	45	G	0.488	T	0.511
6763119	G10488900	38	C	0.407	T	0.592
6783303	rs928486	34	C	0.72	T	0.279
6806280	rs2026509	42	C	0.202	T	0.797
6812873	rs947078	46	C	0.358	G	0.641
6832032	rs2903948	36	A	0.5	G	0.5
6840561	rs1984076	46	A	0.423	G	0.576
6853247	rs1007330	47	C	0.627	T	0.372
6856697	rs2236519	43	A	0.29	G	0.709
6860474	rs963978	37	G	0.581	T	0.418
6864515	rs914829	42	A	0.642	T	0.357
6899982	rs1206745	46	C	0.521	G	0.478
6923504	G10649285	43	A	0.686	G	0.313
6948585	rs1889143	45	A	0.355	G	0.644
6971209	rs1572867	22	A	0.5	G	0.5
6973010	rs2903942	43	A	0.604	G	0.395
6973748	rs1340774	46	C	0.597	G	0.402
6982972	rs1340775	43	A	0.174	G	0.825
6985572	rs947011	20	C	0.1	T	0.9
7001373	rs947019	47	G	0.734	T	0.265
7015566	rs1206808	47	A	0.212	G	0.787
7016301	rs878636	42	C	0.321	T	0.678
7023003	rs1890990	41	C	0.817	G	0.182
7058335	rs1890987	47	C	0.436	G	0.563
7076565	rs2066226	47	C	0.606	G	0.393
7109050	rs1105402	47	C	0.563	T	0.436

Position	SNP	DNAs tested	A1	AF1	A2	AF2
7120657	rs1008031	31	A	0.887	G	0.112
7136302	rs2073172	45	A	0.488	G	0.511
7147606	rs2057085	46	C	0.489	T	0.51
7176890	rs2235908	46	A	0.434	G	0.565
7180163	rs2664544	20	A	0.05	G	0.95
7184703	G10910484	39	C	0.166	T	0.833
7193602	rs2664579	46	A	0.086	C	0.913
7194978	rs2275801	39	A	0.91	G	0.089
7205500	rs2298195	47	A	0.585	G	0.414
7214820	rs2281208	30	A	0.233	G	0.766
7218315	rs2294560	16	C	0.437	T	0.562
7221085	rs761021	41	A	0.073	G	0.926
7238247	rs2235588	46	C	0.282	T	0.717
7250509	rs2076402	47	A	0.563	C	0.436
7273313	rs1013715	34	C	0.073	T	0.926
7284192	G11009973	44	C	0.909	T	0.09
7328804	rs2038376	46	C	0.804	T	0.195
7340303	rs2868824	43	C	0.825	T	0.174
7388225	rs2903925	38	A	0.394	G	0.605
7407650	rs1210832	46	C	0.88	G	0.119
7435267	G11161048	44	A	0.227	G	0.772
7449410	rs2026401	35	C	0.1	T	0.9
7458924	rs1537306	45	C	0.122	G	0.877
7472403	rs1206883	34	A	0.882	G	0.117
7484072	rs2425940	19	A	0.157	G	0.842
7486745	rs1212595	33	A	0.878	T	0.121
7496045	rs2425954	47	A	0.106	C	0.893
7511236	G11237017	43	C	0.883	G	0.116
7534591	rs2425974	39	C	0.153	T	0.846
7555793	rs2143491	39	A	0.41	G	0.589
7572726	G11298507	42	G	0.119	T	0.88
7583326	rs2273022	27	C	0.888	G	0.111
7593810	rs720500	16	A	0.125	G	0.875
7597027	rs2780389	31	A	0.903	G	0.096
7598724	rs627601	34	A	0.132	G	0.867
7601215	rs396221	41	A	0.451	C	0.548
7601311	rs427967	35	A	0.185	G	0.814
7603626	rs642417	14	A	0.785	G	0.214
7605530	rs434258	39	C	0.576	T	0.423
7618608	rs450110	47	C	0.936	T	0.063
7623406	rs425433	45	A	0.177	C	0.822
7632757	rs1577063	31	C	0.08	G	0.919
7638295	rs1591171	47	C	0.787	T	0.212
7650265	rs1889175	35	A	0.757	C	0.242
7660693	rs1610375	47	C	0.5	G	0.5
7668100	G11393881	44	A	0.875	G	0.125
7680319	rs2150809	47	A	0.382	G	0.617
7691843	rs1889170	33	C	0.681	T	0.318
7698794	rs1970137	32	A	0.234	T	0.765
7707362	rs914870	43	C	0.453	T	0.546
7730054	rs2840278	47	A	0.744	G	0.255
7742097	rs928495	47	C	0.882	T	0.117
7750421	G11476202	42	A	0.857	G	0.142
7761606	rs1889178	47	C	0.893	T	0.106
7772734	rs2869224	37	C	0.945	T	0.054
7815713	rs2145134	41	A	0.463	C	0.536
7831818	G11557599	33	A	0.909	G	0.09
7840964	rs981303	47	A	0.914	G	0.085
7843842	rs2426003	39	A	0.769	C	0.23
7868233	G11594014	44	A	0.079	G	0.92
7907760	rs2664588	37	C	0.527	T	0.472
7908242	rs2869315	47	C	0.542	G	0.457
7918857	rs2869318	46	A	0.706	G	0.293
7984412	G11710193	44	A	0.511	G	0.488
8020712	rs2869343	44	C	0.863	G	0.136
8067196	rs1325760	34	C	0.279	T	0.72
8086429	rs645580	30	A	0.516	G	0.483
8093304	rs162084	37	A	0.918	G	0.081
8102275	rs911953	35	C	0.757	T	0.242
8107481	rs162083	40	A	0.262	G	0.737
8109045	rs227879	26	C	0.865	G	0.134
8112096	rs162077	38	C	0.815	T	0.184
8114342	rs827949	45	C	0.433	T	0.566
8116481	rs827942	37	C	0.216	T	0.783
8121186	rs382820	46	A	0.445	G	0.554
8123079	rs730944	43	C	0.802	T	0.197
8131959	rs676815	32	A	0.078	C	0.921
8133019	rs2034811	47	C	0.585	T	0.414
8136606	rs1047605	47	C	0.17	T	0.829
8140295	rs852328	38	A	0.25	G	0.75
8155286	rs852350	38	A	0.868	C	0.131
8160780	rs852353	32	A	0.453	C	0.546
8165169	rs852363	41	C	0.67	G	0.329
8170016	rs852290	46	C	0.619	G	0.38
8180850	rs2426060	44	A	0.34	G	0.659
8184275	rs226831	39	A	0.307	G	0.692
8189258	rs610494	43	A	0.674	T	0.325
8205848	rs170536	39	C	0.346	T	0.653
8212848	rs2021812	35	A	0.9	G	0.1
8216385	rs226811	46	G	0.239	T	0.76
8219174	rs226808	34	C	0.705	T	0.294
8221545	rs226820	35	C	0.371	T	0.628
8228572	G11954353	46	C	0.76	T	0.239
8257798	rs430071	39	A	0.448	G	0.551
8279379	rs442855	43	G	0.546	T	0.453
8282424	rs414644	36	A	0.138	G	0.861

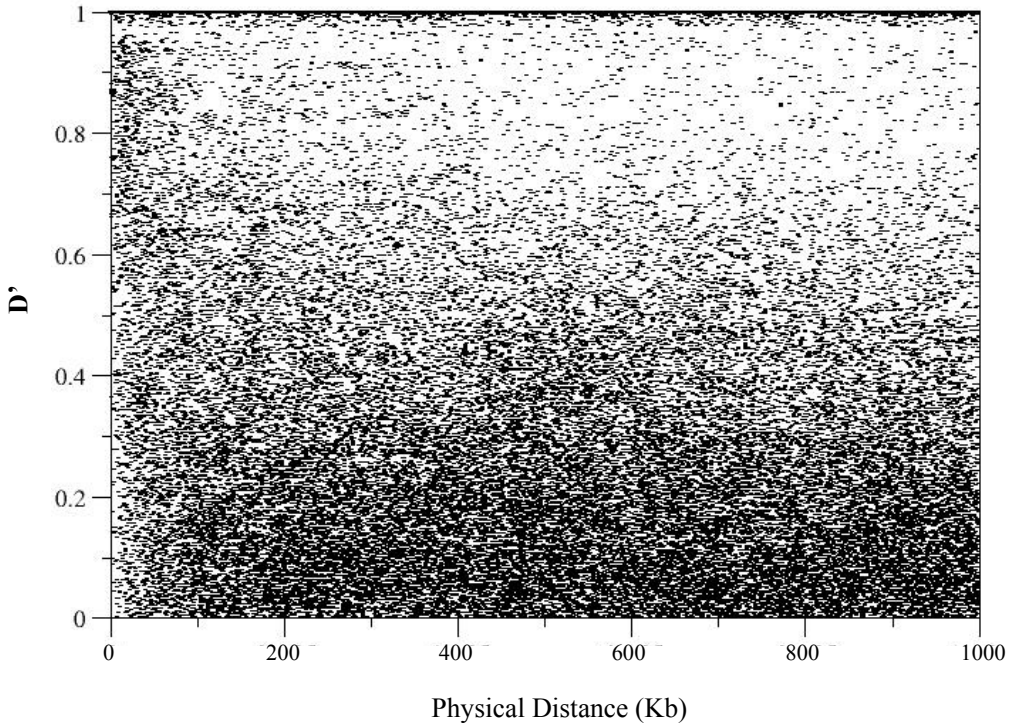
Position	SNP	DNAs tested	A1	AF1	A2	AF2
8286584	rs2426064	17	A	0.852	G	0.147
8294793	rs435954	40	A	0.1	C	0.9
8297380	rs911106	40	G	0.637	T	0.362
8300078	rs410426	40	A	0.587	G	0.412
8359190	rs2869368	41	C	0.731	T	0.268
8366488	rs737329	43	G	0.848	T	0.151
8382395	rs999151	38	C	0.736	T	0.263
8385803	rs993425	46	C	0.347	G	0.652
8393387	rs1321006	39	A	0.333	G	0.666
8406083	rs926693	39	C	0.435	T	0.564
8409400	rs926692	47	G	0.468	T	0.531
8415858	rs910191	45	C	0.311	T	0.688
8439073	rs2869385	40	C	0.225	T	0.775
8444302	rs2010276	17	C	0.852	T	0.147
8468407	rs1546923	39	A	0.448	G	0.551
8487158	rs2904081	47	C	0.755	G	0.244
8495249	G12221030	45	A	0.222	G	0.777
8502800	rs1358721	47	A	0.308	G	0.691
8519582	G12245363	39	A	0.333	G	0.666
8527917	G12253698	43	C	0.558	T	0.441
8568484	rs2664570	38	C	0.855	T	0.144
8576581	G12302362	43	G	0.104	T	0.895
8580276	rs2664521	28	C	0.946	T	0.053
8583605	G12309386	43	C	0.244	T	0.755
8593044	rs2281287	37	C	0.945	T	0.054
8603507	rs2294910	35	A	0.885	G	0.114
8623140	rs2904167	43	C	0.093	T	0.906
8631366	rs729664	44	A	0.147	G	0.852
8641571	rs1040559	40	A	0.575	G	0.425
8647337	rs2143563	37	A	0.513	G	0.486
8650015	rs735084	42	A	0.738	G	0.261
8650836	rs736659	41	C	0.817	T	0.182
8659966	rs2206742	40	C	0.837	T	0.162
8662862	rs926629	21	C	0.214	T	0.785
8666868	rs968478	42	A	0.654	G	0.345
8687541	rs742644	43	C	0.825	T	0.174
8691206	rs2073071	47	G	0.5	T	0.5
8701921	rs1883745	46	C	0.532	T	0.467
8706937	rs2426087	47	A	0.053	G	0.946
8711246	rs2426091	39	A	0.474	G	0.525
8714825	rs998915	40	G	0.362	T	0.637
8720892	rs749339	46	A	0.402	G	0.597
8727430	rs2224504	47	C	0.904	T	0.095
8741429	rs747786	36	C	0.277	T	0.722
8743024	rs750085	38	A	0.802	G	0.197
8762182	rs752420	33	A	0.303	G	0.696
8763650	rs1885289	35	A	0.114	G	0.885
8787153	G12512934	42	A	0.238	G	0.761

Position	SNP	DNAs tested	A1	AF1	A2	AF2
8845178	rs2024596	42	C	0.476	T	0.523
8865459	rs2273101	15	C	0.4	T	0.6
8881518	G12607299	42	A	0.345	G	0.654
8892905	rs1883881	43	A	0.313	C	0.686
8907473	rs2295031	47	A	0.648	G	0.351
8928635	rs1569749	46	A	0.641	G	0.358
8938022	rs2295033	41	C	0.646	T	0.353
8953862	rs2295579	39	A	0.628	T	0.371
8957575	rs2281582	47	C	0.84	T	0.159
8979380	rs707533	45	A	0.644	G	0.355
8979464	rs707534	46	A	0.652	G	0.347
8981690	rs927160	47	C	0.638	G	0.361
8989753	rs2426109	38	C	0.671	G	0.328
9010019	rs2246266	41	C	0.731	T	0.268
9018337	rs2075676	35	A	0.357	C	0.642
9028108	rs2426125	44	A	0.659	G	0.34
9032362	rs2426127	27	C	0.814	T	0.185
9040189	rs17632	36	C	0.652	T	0.347
9043577	rs1556876	35	A	0.657	C	0.342
9048083	rs755587	47	C	0.361	T	0.638
9050253	rs2426132	37	C	0.513	G	0.486
9061435	rs873689	18	C	0.944	T	0.055
9065470	rs168345	42	C	0.19	T	0.809
9075836	rs348298	30	A	0.066	G	0.933
9090860	rs348279	43	A	0.267	G	0.732
9097882	rs2273653	37	A	0.675	C	0.324
9103047	rs348267	44	C	0.647	T	0.352
9128661	rs348284	31	C	0.161	T	0.838
9133460	rs348293	44	C	0.715	T	0.284
9147215	rs1318950	45	A	0.2	G	0.8
9166717	rs2273145	28	C	0.767	T	0.232
9175163	rs238171	43	C	0.197	T	0.802
9175841	rs761499	27	G	0.796	T	0.203
9177308	rs238148	40	C	0.212	T	0.787
9179045	rs238150	46	A	0.684	G	0.315
9186048	rs238203	47	A	0.223	C	0.776
9186141	rs238204	46	A	0.206	G	0.793
9189576	rs7689	28	C	0.892	T	0.107
9192635	rs238209	40	A	0.75	G	0.25
9198565	rs238217	33	A	0.712	T	0.287
9199503	rs238221	31	C	0.096	G	0.903
9201131	rs3021	47	A	0.68	G	0.319
9206235	rs238174	46	C	0.684	T	0.315
9210241	rs238180	24	A	0.145	T	0.854
9216730	rs238186	40	G	0.187	T	0.812
9221384	rs238192	46	A	0.228	G	0.771
9222323	rs479474	47	A	0.797	G	0.202
9232634	rs8197	39	A	0.743	G	0.256

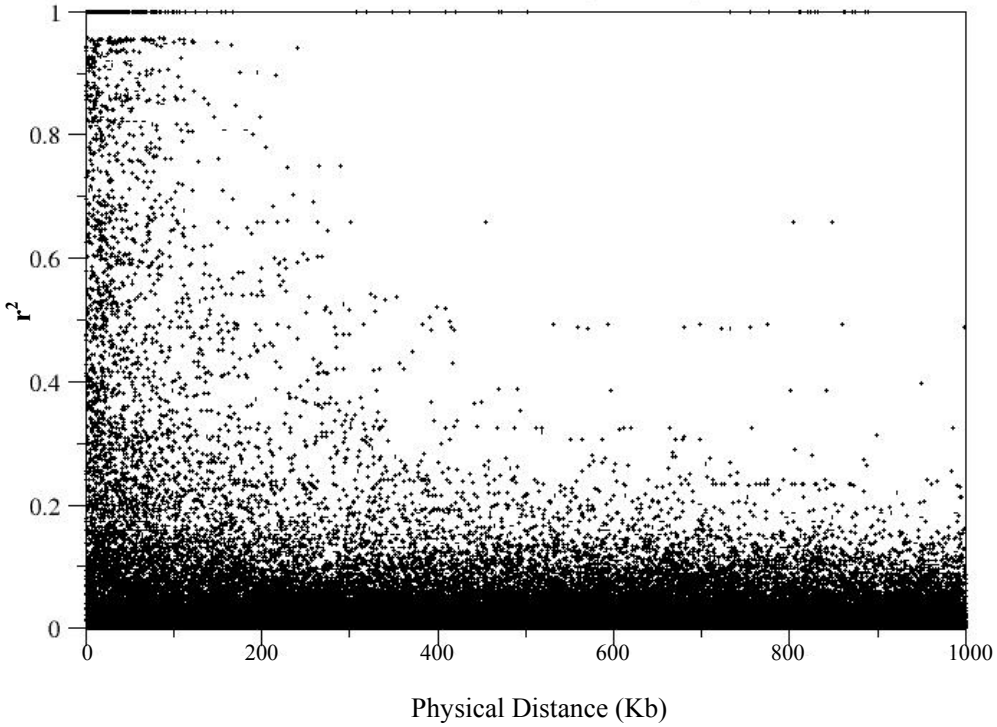
Position	SNP	DNAs tested	A1	AF1	A2	AF2
9246798	rs237720	47	C	0.797	G	0.202
9297507	rs1393948	44	A	0.147	G	0.852
9308102	rs237449	47	A	0.914	G	0.085
9316031	rs1051295	38	A	0.657	G	0.342
9338134	rs756529	27	A	0.481	G	0.518
9352518	rs237452	44	C	0.431	T	0.568
9360297	rs237461	46	C	0.26	T	0.739
9362723	rs119416	45	A	0.255	G	0.744
9365238	rs237468	36	C	0.166	T	0.833
9370936	rs237473	43	A	0.755	C	0.244
9376632	rs237475	47	C	0.425	T	0.574
9378508	rs237476	47	G	0.585	T	0.414
9403740	rs572845	46	C	0.673	T	0.326
9405328	rs610412	46	A	0.63	C	0.369
9419580	rs477135	47	A	0.351	T	0.648
9424690	rs553213	43	C	0.534	T	0.465
9430480	rs554985	41	A	0.926	T	0.073
9436803	rs496511	44	A	0.59	G	0.409
9446556	rs491025	38	A	0.539	G	0.46
9454302	rs729824	31	C	0.112	T	0.887
9456832	rs5629	39	A	0.153	C	0.846
9466097	rs508757	42	C	0.214	T	0.785
9467808	rs5628	47	C	0.946	T	0.053
9504964	rs498646	36	C	0.875	G	0.125
9510256	rs493694	34	A	0.352	G	0.647
9515205	rs693649	47	A	0.18	G	0.819
9524088	rs538748	45	A	0.288	G	0.711
9535505	rs507120	47	C	0.819	G	0.18
9556062	rs235013	41	C	0.597	G	0.402
9559489	rs408618	47	C	0.436	T	0.563
9566770	rs235039	44	A	0.636	G	0.363
9571200	rs235025	45	A	0.622	T	0.377
9575378	rs235030	27	C	0.462	T	0.537
9580040	rs235035	40	C	0.937	T	0.062
9584275	rs421801	39	C	0.166	T	0.833
9586160	rs2235855	40	C	0.662	T	0.337
9593917	rs803194	42	A	0.833	G	0.166
9600585	rs2273088	36	A	0.43	G	0.569
9621222	rs2057075	33	A	0.621	T	0.378
9629778	rs1016234	47	C	0.18	T	0.819
9636933	G13362714	42	C	0.369	T	0.63
9645140	rs913476	45	C	0.388	T	0.611
9658646	rs951497	46	A	0.184	G	0.815
9694319	rs590397	47	A	0.138	G	0.861
9710810	rs651195	45	A	0.611	G	0.388
9714843	rs679376	47	C	0.755	T	0.244
9729705	rs588375	47	A	0.223	G	0.776
9737529	rs678634	43	A	0.162	G	0.837
9747259	rs605138	43	C	0.872	T	0.127
9754474	G13480255	45	C	0.744	T	0.255
9762534	rs719219	19	A	0.184	G	0.815
9767149	rs1328454	43	A	0.558	G	0.441
9777066	rs2182963	46	A	0.195	G	0.804
9794842	rs530461	41	C	0.585	T	0.414
9801945	rs595777	46	C	0.576	G	0.423
9805780	rs645182	30	A	0.116	G	0.883
9807380	rs627898	47	G	0.425	T	0.574
9809295	rs517501	43	C	0.883	G	0.116
9814983	rs1033474	38	C	0.71	T	0.289
9820417	rs633829	40	A	0.437	G	0.562
9828477	rs536092	27	A	0.351	G	0.648
9832592	rs1062840	46	C	0.934	T	0.065
9836642	rs479007	33	C	0.863	G	0.136
9847736	rs632376	45	A	0.6	G	0.4
9859218	rs1008687	45	G	0.788	T	0.211
9881796	rs2038127	47	A	0.691	G	0.308
9889019	G13614800	44	A	0.136	G	0.863
9901242	rs1883553	30	C	0.866	T	0.133
9922778	G13648559	40	A	0.875	G	0.125
9942829	G13668610	43	C	0.906	T	0.093
9964783	rs2869940	39	C	0.256	T	0.743
9970776	rs1555317	44	C	0.352	T	0.647
9976053	rs1973945	38	C	0.381	T	0.618
9996796	rs926602	44	C	0.125	T	0.875
10017355	rs1007580	47	A	0.595	G	0.404
10024917	rs1049871	38	A	0.118	T	0.881
10026922	rs2073053	14	G	0.892	T	0.107
10033521	rs2269217	47	C	0.265	G	0.734
10050075	rs2869956	41	A	0.573	T	0.426
10052424	rs2269214	40	A	0.325	G	0.675
10057157	rs383495	45	C	0.688	T	0.311
10060293	rs367033	41	A	0.926	C	0.073
10060929	rs1928545	46	C	0.728	T	0.271
10077265	rs761213	47	C	0.446	G	0.553
10091159	rs232737	45	C	0.544	G	0.455

Appendix 16: (A,B) Variability of D' (A) and r^2 (B) using the pairwise values for all polymorphic SNPs separated by □ 1 Mb. (C,D) The corresponding plots for LD decay. (E) Detailed view of the 0-300 Kb window for SNPs with MAF>20% .

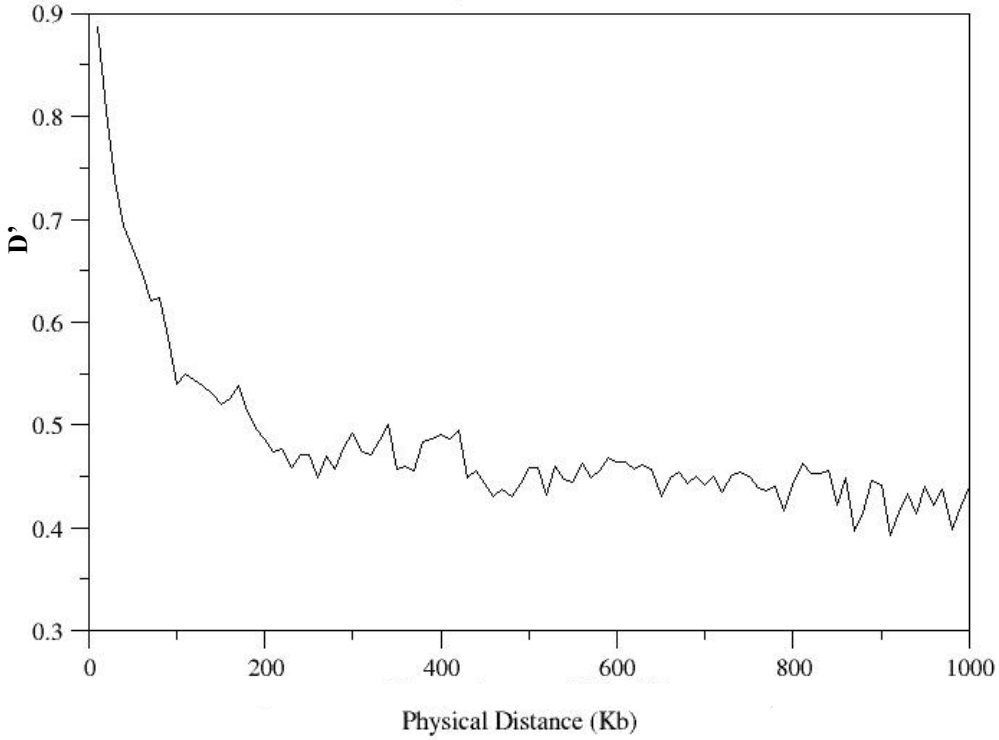
A. D' (using all polymorphic SNPs)



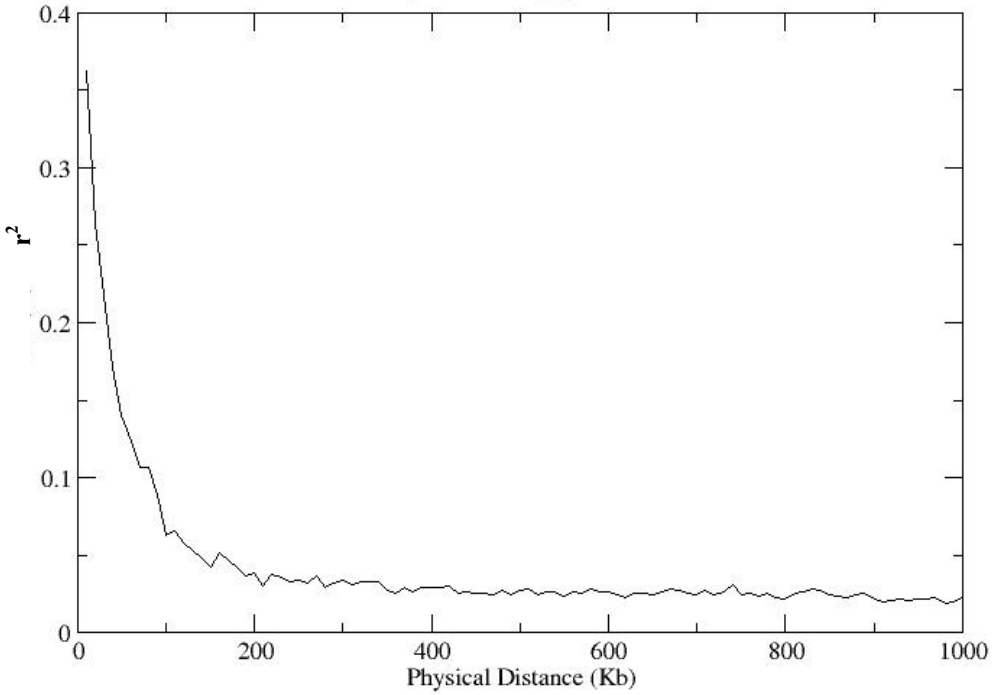
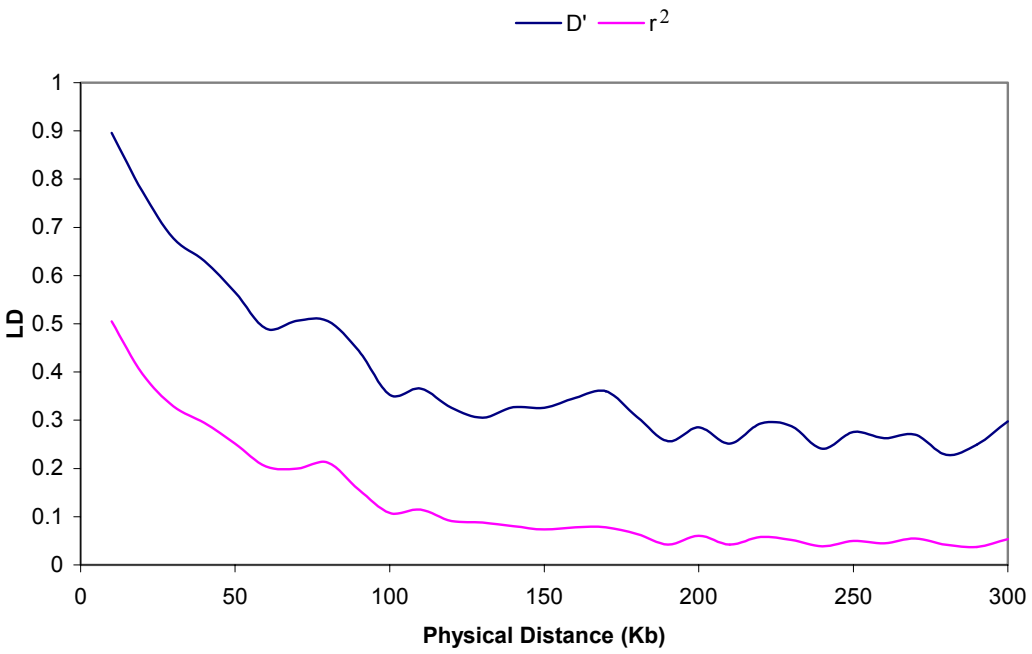
C. r^2 (using all polymorphic SNPs)



A. D' (using all polymorphic SNPs)



C. r^2 (using all polymorphic SNPs)



E. (using SNPs with MAF>20%)