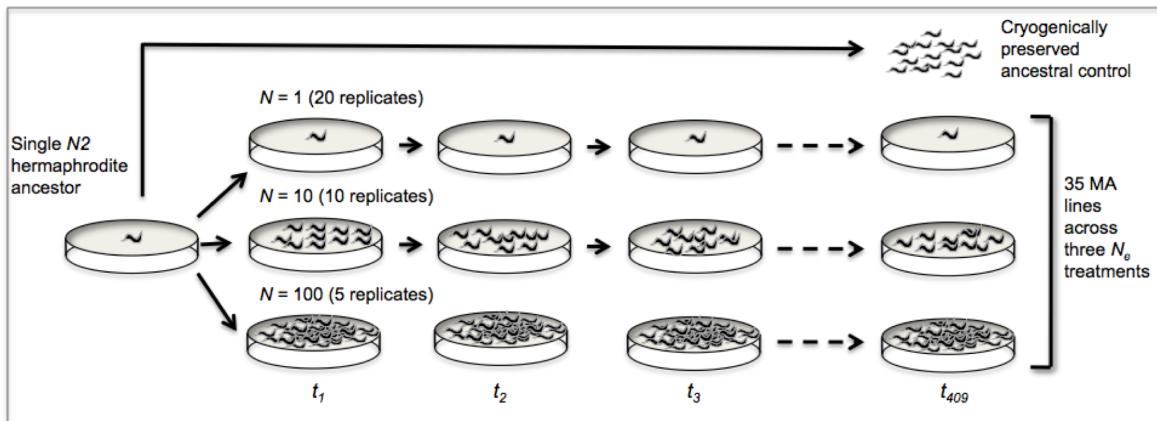


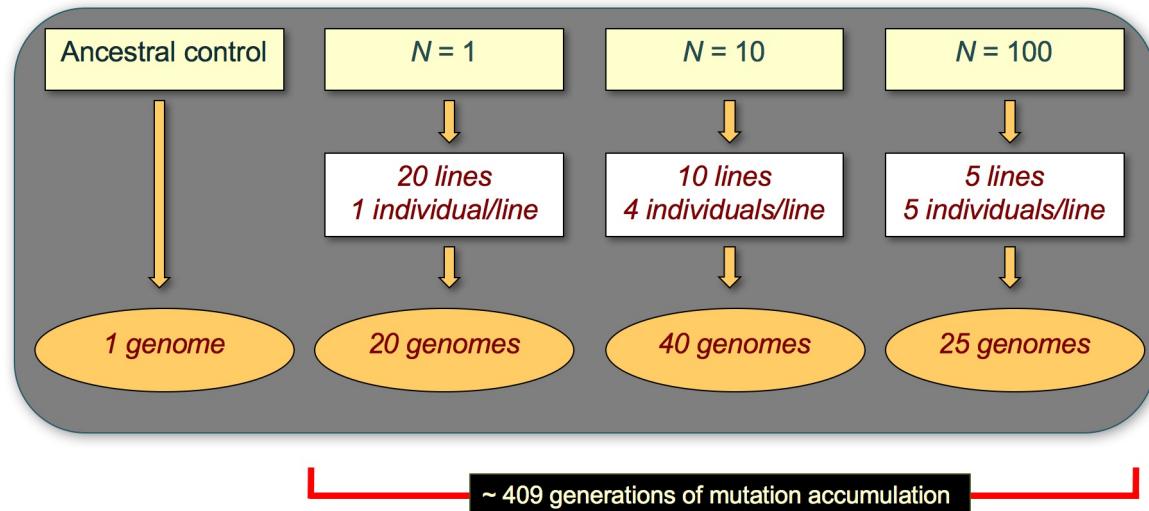
## **Supplemental Material**

**Konrad et al. “*Mutational Landscape of Spontaneous Base Substitutions and Small Indels in Experimental *Caenorhabditis elegans* Populations of Differing Size.*”**

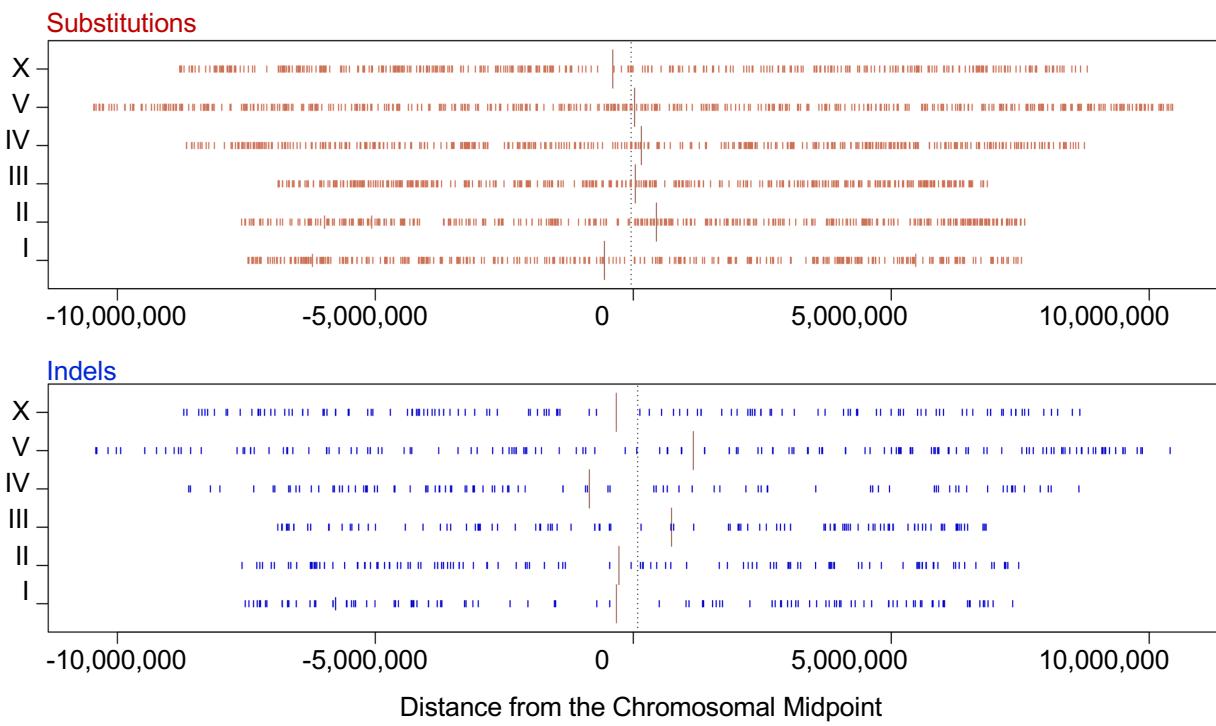
A



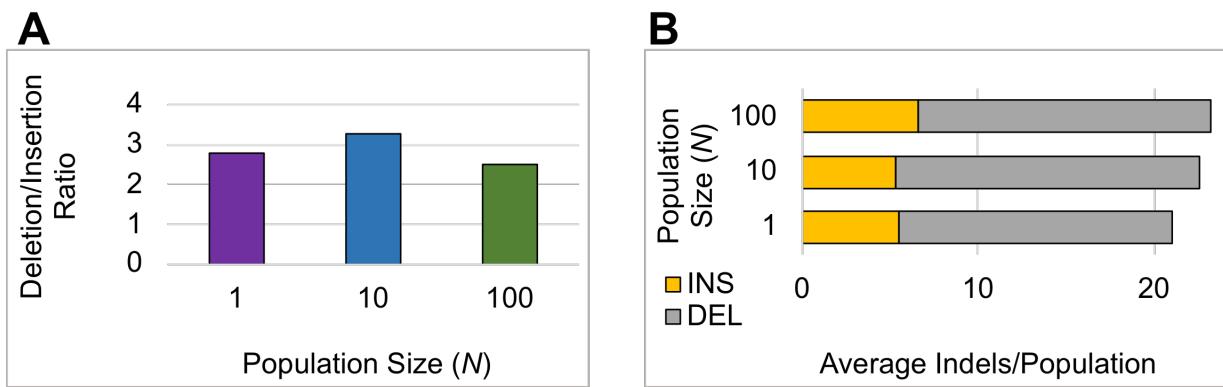
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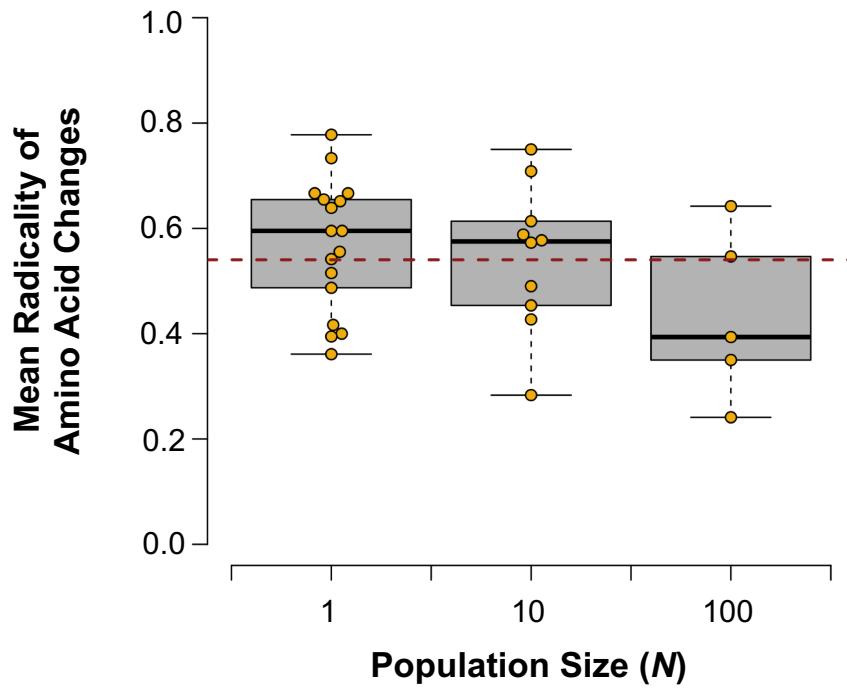
**Figure S1. Schematic of the *C. elegans* spontaneous MA experiment with three population size treatments and design for whole-genome sequencing following MA.** (A) All 35 MA lines were descended from a single *N2* hermaphrodite ancestor whose additional descendants were expanded for two generations and cryopreserved as ancestral, pre-MA controls. The maintenance of lines at varying  $N$  enables manipulation of the efficacy of selection. After  $t$  generations, the  $N = 1$  lines are expected to have independently accumulated mutations, leading to a mean decline in fitness relative to the ancestral control and increased among-line variance. The larger population size treatments ( $N = 10$  and  $100$  worms) will accumulate mutations whose fates will be determined by the fitness effects of the mutation and the efficacy of natural selection operating in these genetic backgrounds. (B) Whole-genome sequencing to yield 86 *C. elegans* genomes, including that of the ancestral, pre-mutation accumulation *N2* control and 35 MA lines following 409 MA generations. Multiple individuals were sequenced for MA lines maintained at larger population sizes ( $N = 10$  and  $100$  individuals).



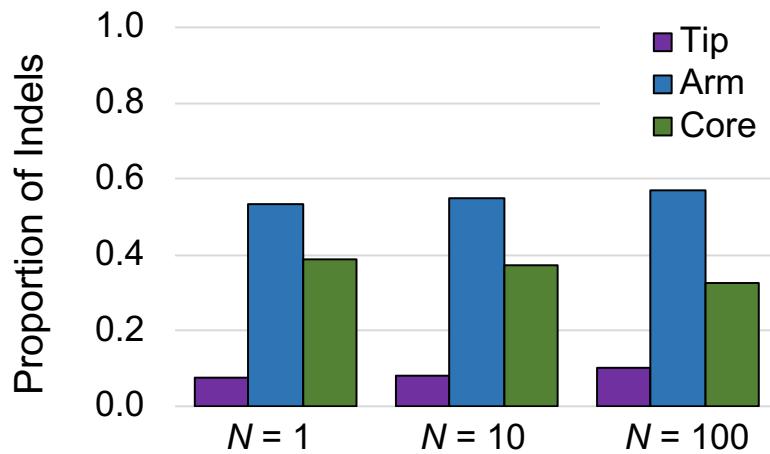
**Figure S2. Chromosomal distribution of SNPs and small indels in the genomes of the  $N = 1$  lines.** SNPs and small indels are denoted red and blue bars, respectively.



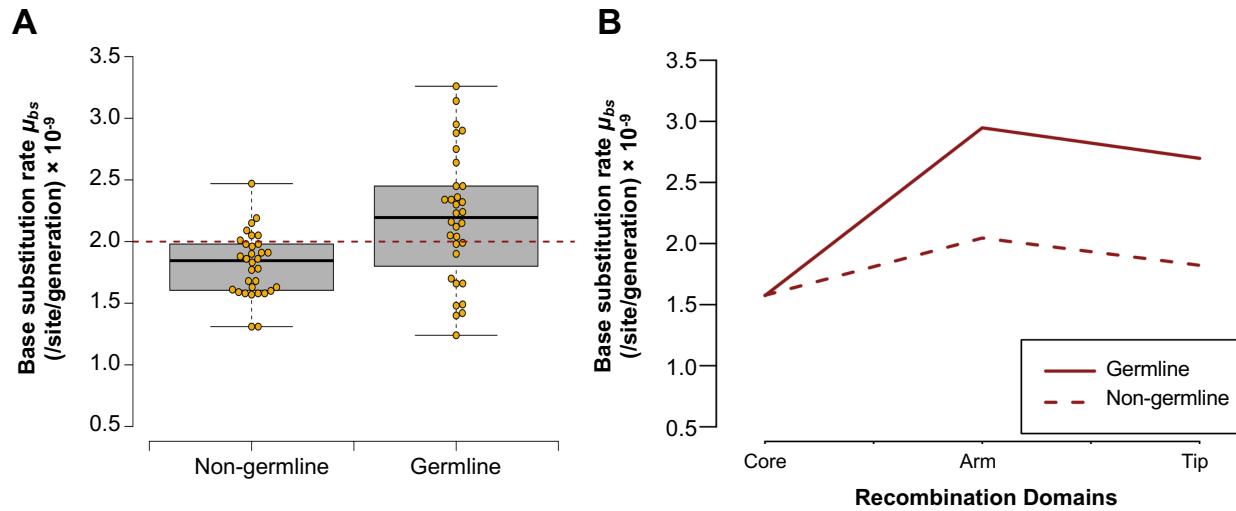
**Figure S3. Pervasive deletion bias in *C. elegans* MA lines irrespective of population size.** (A) A strong deletion bias of approximately 2.88 deletions per insertion is maintained across MA lines of differing population size. (B) Deletion rates among all MA lines are significantly higher than insertion rates (paired  $t$ -test:  $t = 10.22, p < 0.0001$ ; Wilcoxon signed-rank:  $W = 264, p < 0.0001$ ).



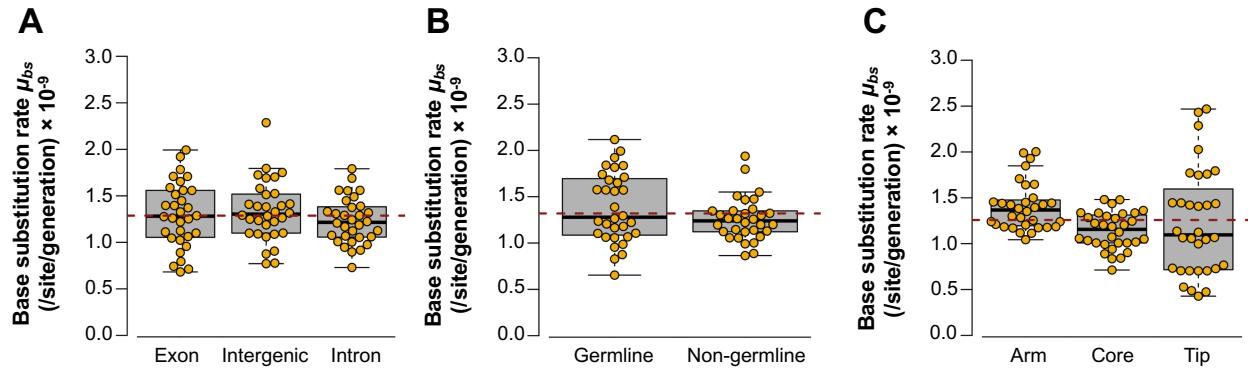
**Figure S4. Mean radicality score of replacement mutations for each MA line within three population size treatments.** The difference in the mean radicality between population size treatments is not significant (ANOVA:  $F = 1.93, p = 0.16$ ; Kendall  $\tau = -0.21, p = 0.13$ ).



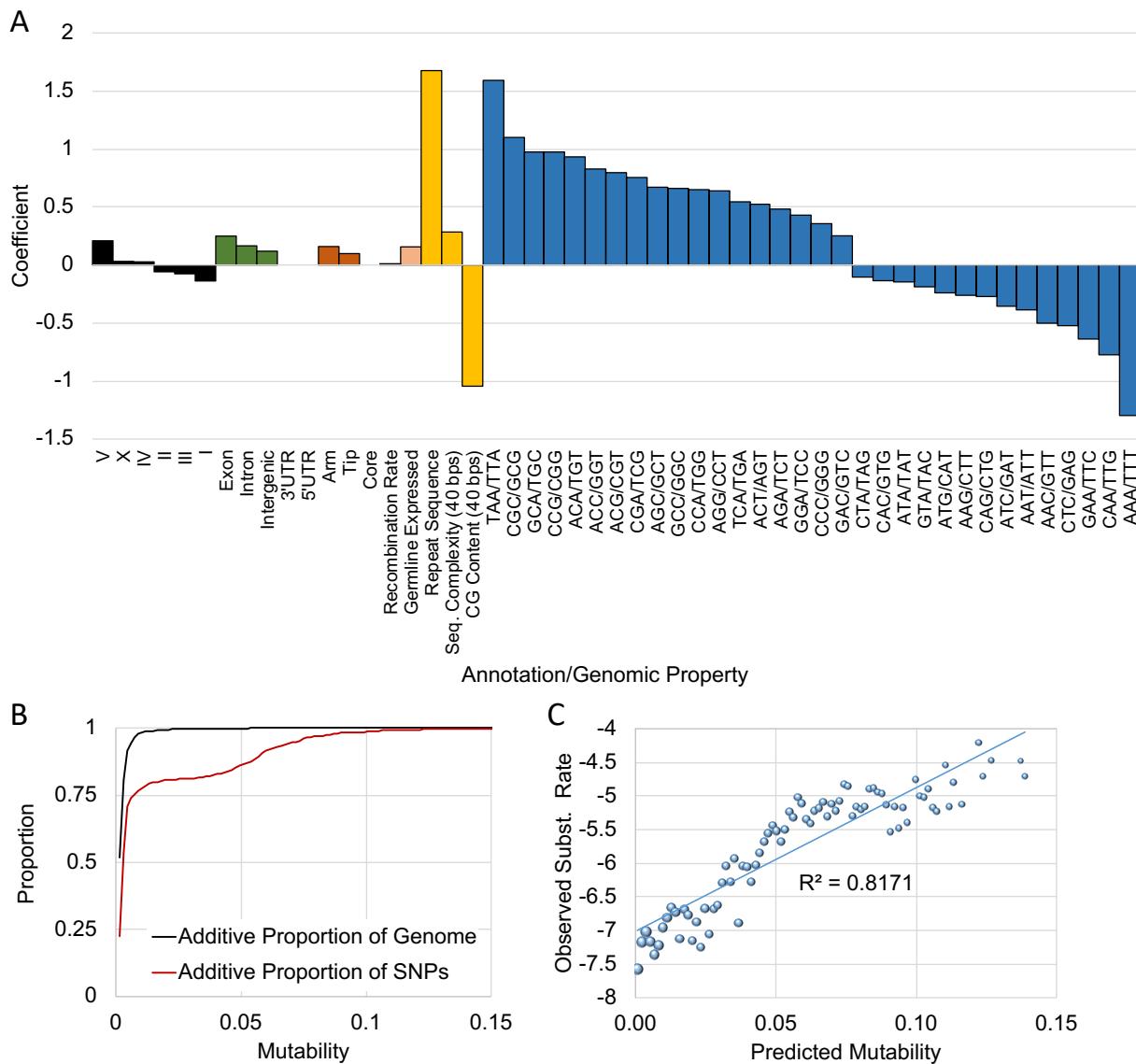
**Figure S5. Small indel distribution across chromosomal domains and as a function of population size.** The distribution of indels across chromosomal arms, cores, and tips were compared between population sizes ( $N = 1$ , 10, and 100 individuals). The observed distribution of indels across these recombinational domains does not differ significantly between population size treatments (Fisher's exact test:  $p = 0.74$ ).



**Figure S6. Germline expressed genes have higher mutation rates than non-germline expressed genes.** (A) Base substitution rate distributions differ significantly between genes with germline versus non-germline expression ( $F = 12.05, p = 0.0007$ ). (B) Germline expressed genes located in chromosomal arms and tips have higher mutation rates than non-germline genes in the same recombination domain ( $F = 12.8, p = 0.0007$ ).



**Figure S7. Comparison of mutation rates with respect to genome position and germline transcription when A/T to T/A transversions are excluded from the data.** (A) No difference in base substitution rates among exons, introns and intergenic regions (ANOVA  $F = 0.91, p = 0.41$ ). (B) No difference in base substitution rates between germline and non-germline expressed genes (Welch's paired  $t = 1.6, p = 0.12$ ). (C) Significant variation in base substitution rates among chromosomal cores, arms and tips (ANOVA  $F = 3.90, p = 0.024$ ).



**Figure S8. Genomic properties of sites undergoing base substitutions.** (A) Estimated coefficients in logistic regression of genomic predictors of mutability. (B) The cumulative proportion of the genome (black) and SNPs (red) at sites with different predicted mutabilities. (C) The fit between predicted mutability and observed mutation rate (linear regression:  $F = 348.5$ ,  $R^2 = 0.82$ ,  $p < 2.2 \times 10^{-16}$ ).

**Table S1. List of nuclear base substitution mutations identified in the MA lines.** Column 1 represents the population size treatment ( $N=1$ , 10 or 100 individuals). Column 2 corresponds to the specific MA line harboring the mutation within a particular population size treatment. Columns 3 and 4 provide the genomic location with regards to chromosome and nucleotide position of the spontaneous mutation, respectively. Column 5 specifies the original and the substituted base. Column 6 represents the frequency of the mutation within the MA line. Column 7 specifies whether the base substitution occurred in an exon, intron or intergenic (denoted as ‘IG’) region of the genome. Column 8 denotes whether a base substitution in an exonic region results in a synonymous or nonsynonymous change. In the case of the latter, the amino acid change in the protein is specified. Column 9 specifies the location of the substitution with respect to one of three recombination zones, namely cores, arms or tips. Column 10 specifies whether or not the substitution is in a gene that exhibits germline expression.

Population Size	Line	Chromosome	Position	Mutation	Frequency	Coding Type	Effect	Recombination Zone	Germline Expression
$N=1$	1A	I	1,614,173	C → A	1.00	Intron	—	Arm	YES
	1A	I	2,635,482	T → A	1.00	IG	—	Arm	—
	1A	I	3,428,758	A → G	1.00	Intron	—	Arm	NO
	1A	I	3,428,774	G → A	1.00	Intron	—	Arm	NO
	1A	I	3,539,634	T → C	1.00	UTR	—	Arm	NO
	1A	I	3,836,097	C → G	1.00	Intron	—	Arm	NO
	1A	I	9,513,588	G → T	1.00	Exon	S → I	Core	YES
	1A	I	11,218,117	C → A	1.00	Exon	Q → H	Arm	YES
	1A	I	11,872,374	A → T	1.00	IG	—	Arm	—
	1A	I	12,863,948	T → A	1.00	IG	—	Arm	—
	1A	II	198,360	T → A	1.00	Intron	—	Tip	NO
	1A	II	1,811,230	G → A	1.00	IG	—	Arm	—
	1A	II	2,700,042	A → T	1.00	Exon	M → K	Arm	NO
	1A	II	3,006,241	C → A	1.00	Exon	T → K	Arm	NO
	1A	II	9,790,063	C → T	1.00	Intron	—	Core	NO
	1A	II	10,029,300	A → T	1.00	IG	—	Core	—
	1A	II	10,396,854	T → A	1.00	IG	—	Core	—
	1A	II	10,486,641	C → T	1.00	IG	—	Core	—
	1A	II	11,162,820	A → G	1.00	IG	—	Core	—

1A	II	12,077,085	A → T	1.00	Intron	—	Arm	YES
1A	II	13,990,790	T → C	1.00	Intron	—	Arm	NO
1A	II	14,143,561	C → T	1.00	Exon	R → Q	Arm	NO
1A	II	14,165,281	T → A	1.00	Intron	—	Arm	YES
1A	II	14,398,763	A → T	1.00	Exon	Synonymous	Arm	YES
1A	III	1,547,877	C → G	1.00	Intron	—	Arm	YES
1A	III	1,767,549	C → T	1.00	Intron	—	Arm	NO
1A	III	3,105,822	G → C	1.00	IG	—	Arm	—
1A	III	3,640,505	A → T	1.00	Intron	—	Arm	YES
1A	III	3,775,915	T → A	1.00	Intron	—	Core	NO
1A	III	4,601,518	C → T	1.00	Intron	—	Core	NO
1A	III	5,443,629	T → G	1.00	Intron	—	Core	YES
1A	III	6,087,993	G → A	1.00	IG	—	Core	—
1A	III	9,804,755	A → T	1.00	Intron	—	Core	YES
1A	III	9,923,413	C → T	1.00	Exon	Synonymous	Core	NO
1A	III	10,387,584	A → T	1.00	IG	—	Arm	—
1A	III	11,592,329	A → G	1.00	Intron	—	Arm	YES
1A	III	11,772,330	T → A	1.00	Intron	—	Arm	NO
1A	III	13,632,289	A → T	1.00	IG	—	Tip	—
1A	IV	312,364	A → C	1.00	Intron	—	Tip	NO
1A	IV	518,660	G → T	1.00	Exon	Q → K	Tip	YES
1A	IV	2,291,624	T → A	1.00	Intron	—	Arm	NO
1A	IV	2,976,203	A → C	1.00	Intron	—	Arm	NO
1A	IV	9,352,379	T → C	1.00	Exon	S → G	Core	NO
1A	IV	12,970,119	T → G	1.00	IG	—	Core	—
1A	IV	13,192,811	C → A	1.00	Intron	—	Arm	NO
1A	IV	15,898,096	C → T	1.00	IG	—	Arm	—
1A	V	110,366	G → A	1.00	Intron	—	Tip	NO
1A	V	192,543	A → T	1.00	Intron	—	Tip	NO
1A	V	1,390,456	A → T	1.00	IG	—	Arm	—
1A	V	1,707,865	A → G	1.00	IG	—	Arm	—

1A	V	2,129,317	C → T	1.00		Exon	Synonymous	Arm	YES
1A	V	2,298,579	T → A	1.00		IG	—	Arm	—
1A	V	3,186,240	A → C	1.00		IG	—	Arm	—
1A	V	3,700,714	T → A	1.00		Intron	—	Arm	YES
1A	V	4,313,737	A → C	1.00		Intron	—	Arm	NO
1A	V	4,426,244	C → T	1.00		Exon	S → N	Arm	NO
1A	V	7,409,034	T → C	1.00		IG	—	Core	—
1A	V	8,151,443	G → A	1.00		IG	—	Core	—
1A	V	9,970,453	C → G	1.00		Exon	E → Q	Core	NO
1A	V	10,163,273	G → T	1.00		IG	—	Core	—
1A	V	17,809,028	C → T	1.00		IG	—	Arm	—
1A	V	18,076,226	T → A	1.00		Intron	—	Arm	NO
1A	X	765,242	C → A	1.00		Exon	L → I	Arm	NO
1A	X	2,064,716	A → T	1.00		IG	—	Arm	—
1A	X	2,846,084	T → G	1.00		Intron	—	Arm	NO
1A	X	7,293,082	T → A	1.00		Intron	—	Core	NO
1A	X	7,871,646	G → A	1.00		IG	—	Core	—
1A	X	10,063,257	A → T	1.00		Exon	S → R	Core	NO
1A	X	11,558,775	G → T	1.00		Intron	—	Core	NO
1A	X	11,676,739	A → T	1.00		Intron	—	Core	NO
1A	X	12,116,182	T → A	1.00		IG	—	Core	—
1A	X	12,403,734	T → C	1.00		Intron	—	Core	NO
1A	X	14,080,488	T → A	1.00		Exon	Synonymous	Arm	NO
1A	X	14,181,047	T → A	1.00		Intron	—	Arm	NO
1A	X	14,348,605	T → A	1.00		IG	—	Arm	—
1A	X	15,642,161	T → A	1.00		Intron	—	Arm	NO
1A	X	15,648,597	G → A	1.00		Exon	H → Y	Arm	NO
1A	X	15,947,404	A → T	1.00		Intron	—	Arm	YES
1A	X	16,848,977	G → A	1.00		Intron	—	Tip	NO
1A	X	17,008,739	A → G	1.00		IG	—	Tip	—
1B	I	1,163,311	G → C	1.00		Intron	—	Arm	YES

1B	I	2,375,013	A → T	1.00	IG	—	Arm	—
1B	I	2,416,427	C → T	1.00	Intron	—	Arm	NO
1B	I	2,723,077	C → T	1.00	Intron	—	Arm	NO
1B	I	2,730,341	T → A	1.00	Intron	—	Arm	YES
1B	I	6,673,296	A → T	1.00	IG	—	Core	—
1B	I	6,897,517	A → T	1.00	IG	—	Core	—
1B	I	7,969,135	C → T	1.00	Intron	—	Core	YES
1B	I	8,044,661	A → T	1.00	IG	—	Core	—
1B	I	9,828,307	T → A	1.00	IG	—	Core	—
1B	I	9,997,853	G → C	1.00	Intron	—	Core	NO
1B	I	15,060,162	T → C	1.00	IG	—	Tip	—
1B	II	284,911	T → A	1.00	Intron	—	Tip	YES
1B	II	2,571,142	A → T	1.00	Intron	—	Arm	NO
1B	II	3,172,370	T → A	1.00	IG	—	Arm	—
1B	II	4,202,843	G → A	1.00	Intron	—	Arm	NO
1B	II	5,113,293	G → T	1.00	Exon	M → I	Core	NO
1B	II	6,080,417	G → A	1.00	Exon	P → S	Core	YES
1B	II	8,025,203	G → C	1.00	Exon	T → S	Core	YES
1B	II	8,193,034	A → T	1.00	Exon	L → H	Core	NO
1B	II	8,504,650	G → C	1.00	Intron	—	Core	NO
1B	II	13,110,614	A → C	1.00	Intron	—	Arm	YES
1B	II	13,743,226	T → A	1.00	Intron	—	Arm	YES
1B	II	13,915,900	T → A	1.00	IG	—	Arm	—
1B	II	15,227,788	A → T	1.00	Intron	—	Tip	YES
1B	III	1,496,668	C → A	1.00	Intron	—	Arm	NO
1B	III	1,632,871	T → A	1.00	Intron	—	Arm	NO
1B	III	4,041,177	A → T	1.00	IG	—	Core	—
1B	III	7,046,174	A → C	1.00	IG	—	Core	—
1B	III	9,792,030	A → T	1.00	IG	—	Core	—
1B	III	11,960,345	C → G	1.00	IG	—	Arm	—
1B	III	12,667,460	A → T	1.00	IG	—	Arm	—

1B	III	13,149,005	T → A	1.00	Intron	—	Arm	NO
1B	III	13,408,172	C → T	1.00	Intron	—	Tip	NO
1B	IV	185,026	C → A	1.00	Intron	—	Tip	NO
1B	IV	1,262,874	G → A	1.00	Intron	—	Arm	NO
1B	IV	2,229,696	G → A	1.00	Intron	—	Arm	NO
1B	IV	3,910,967	G → T	1.00	IG	—	Core	—
1B	IV	4,697,813	C → T	1.00	Intron	—	Core	YES
1B	IV	5,574,915	G → T	1.00	IG	—	Core	—
1B	IV	6,853,587	T → A	1.00	Intron	—	Core	NO
1B	IV	7,711,876	A → T	1.00	Intron	—	Core	NO
1B	IV	9,700,991	C → A	1.00	Exon	M → I	Core	YES
1B	IV	10,454,177	A → T	1.00	IG	—	Core	—
1B	IV	10,975,455	G → A	1.00	IG	—	Core	—
1B	IV	11,026,480	A → T	1.00	IG	—	Core	—
1B	IV	11,120,361	A → T	1.00	Intron	—	Core	YES
1B	IV	12,962,361	C → T	1.00	IG	—	Core	—
1B	IV	13,748,073	T → A	1.00	IG	—	Arm	—
1B	IV	13,884,960	T → A	1.00	IG	—	Arm	—
1B	IV	13,955,463	A → T	1.00	Intron	—	Arm	NO
1B	IV	13,995,981	A → C	1.00	Intron	—	Arm	NO
1B	IV	14,588,016	C → G	1.00	IG	—	Arm	—
1B	IV	14,707,384	A → T	1.00	IG	—	Arm	—
1B	IV	15,436,273	T → A	1.00	IG	—	Arm	—
1B	IV	15,662,541	A → T	1.00	IG	—	Arm	—
1B	IV	15,771,205	G → A	1.00	IG	—	Arm	—
1B	IV	15,974,404	T → C	1.00	IG	—	Arm	—
1B	IV	16,465,039	A → T	1.00	IG	—	Arm	—
1B	V	123,853	T → A	1.00	IG	—	Tip	—
1B	V	173,626	G → C	1.00	Intron	—	Tip	YES
1B	V	352,703	A → T	1.00	Intron	—	Tip	YES
1B	V	1,392,512	C → G	1.00	IG	—	Arm	—

1B	V	1,702,445	T → A	1.00	Intron	—	Arm	NO
1B	V	3,191,356	C → T	1.00	Exon	D → N	Arm	YES
1B	V	4,045,849	T → A	1.00	IG	—	Arm	—
1B	V	4,207,363	T → A	1.00	Intron	—	Arm	YES
1B	V	4,232,507	T → A	1.00	IG	—	Arm	—
1B	V	7,153,709	G → A	1.00	IG	—	Core	—
1B	V	7,192,372	G → A	1.00	Intron	—	Core	YES
1B	V	8,281,976	A → T	1.00	Intron	—	Core	NO
1B	V	8,593,544	A → T	1.00	IG	—	Core	—
1B	V	11,789,011	T → G	1.00	Exon	S → A	Core	NO
1B	V	12,943,040	A → G	1.00	Exon	C → R	Core	NO
1B	V	13,189,018	C → T	1.00	Exon	Synonymous	Core	NO
1B	V	17,029,971	C → A	1.00	IG	—	Arm	—
1B	V	17,605,664	A → T	1.00	IG	—	Arm	—
1B	V	19,078,331	G → A	1.00	Exon	S → F	Arm	NO
1B	V	19,146,886	T → A	1.00	Intron	—	Arm	NO
1B	V	19,342,208	C → T	1.00	Exon	M → I	Arm	NO
1B	V	20,222,004	G → A	1.00	IG	—	Arm	—
1B	X	151,756	A → T	1.00	Intron	—	Tip	NO
1B	X	1,522,750	C → A	1.00	IG	—	Arm	—
1B	X	2,863,493	A → T	1.00	IG	—	Arm	—
1B	X	5,955,277	T → A	1.00	IG	—	Arm	—
1B	X	6,388,846	C → T	1.00	Intron	—	Core	NO
1B	X	6,665,117	C → T	1.00	Exon	R → H	Core	NO
1B	X	9,089,189	C → T	1.00	Intron	—	Core	NO
1B	X	9,150,386	T → A	1.00	IG	—	Core	—
1B	X	9,735,512	C → T	1.00	Intron	—	Core	NO
1B	X	9,941,989	T → A	1.00	Intron	—	Core	NO
1B	X	10,796,564	C → T	1.00	Exon	M → I	Core	YES
1B	X	11,676,739	A → T	1.00	Intron	—	Core	NO
1B	X	12,418,098	C → T	1.00	IG	—	Core	—

1B	X	12,821,192	G → A	1.00		IG	—	Arm	—
1B	X	15,453,102	T → A	1.00		IG	—	Arm	—
1B	X	15,696,111	G → C	1.00		Intron	—	Arm	YES
1B	X	15,992,234	C → T	1.00		Exon	Synonymous	Arm	NO
1B	X	17,129,417	C → T	1.00		IG	—	Tip	—
1C	I	3,595,923	C → A	1.00		Intron	—	Arm	NO
1C	I	5,225,162	C → A	1.00		IG	—	Core	—
1C	I	11,596,610	T → A	1.00		Intron	—	Arm	NO
1C	I	12,169,542	T → G	1.00		Intron	—	Arm	NO
1C	I	12,229,062	A → T	1.00		IG	—	Arm	—
1C	I	12,857,783	T → C	1.00		Intron	—	Arm	YES
1C	I	13,865,832	C → T	1.00		Intron	—	Arm	NO
1C	II	1,485,038	C → T	1.00		Intron	—	Arm	NO
1C	II	3,158,506	T → A	1.00		Exon	R → S	Arm	NO
1C	II	3,385,362	C → T	1.00		Exon	Synonymous	Arm	NO
1C	II	5,326,539	A → C	1.00		Intron	—	Core	YES
1C	II	7,788,228	A → G	1.00		Exon	F → L	Core	NO
1C	II	9,321,110	G → T	1.00		Exon	V → L	Core	NO
1C	II	14,237,779	A → G	1.00		Exon	V → A	Arm	NO
1C	II	14,677,489	G → T	1.00		Intron	—	Tip	NO
1C	II	14,935,468	C → T	1.00		Intron	—	Tip	NO
1C	III	1,128,382	T → C	1.00		Intron	—	Arm	NO
1C	III	2,810,379	T → A	1.00		Intron	—	Arm	YES
1C	III	3,355,143	C → A	1.00		Exon	A → E	Arm	NO
1C	III	4,585,649	T → A	1.00		Intron	—	Core	YES
1C	III	9,569,341	T → C	1.00		Exon	L → P	Core	YES
1C	III	10,561,887	G → T	1.00		IG	—	Arm	—
1C	III	12,675,169	A → T	1.00		Intron	—	Arm	YES
1C	IV	1,164,740	G → A	1.00		Exon	Synonymous	Arm	NO
1C	IV	1,175,806	T → A	1.00		Intron	—	Arm	YES
1C	IV	3,163,445	C → T	1.00		IG	—	Arm	—

1C	IV	5,496,856	G → A	1.00	Exon	D → N	Core	YES
1C	IV	5,668,339	T → G	1.00	Intron	—	Core	NO
1C	IV	7,608,648	C → T	1.00	Exon	S → L	Core	NO
1C	IV	10,166,609	C → T	1.00	Exon	Synonymous	Core	YES
1C	IV	12,028,230	C → T	1.00	Exon	E → K	Core	YES
1C	IV	13,333,889	T → A	1.00	IG	—	Arm	—
1C	V	714,404	A → T	1.00	IG	—	Arm	—
1C	V	1,014,530	T → G	1.00	Intron	—	Arm	YES
1C	V	3,045,563	C → T	1.00	IG	—	Arm	—
1C	V	4,293,336	G → T	1.00	Exon	C → *	Arm	NO
1C	V	7,208,754	C → T	1.00	Exon	Synonymous	Core	YES
1C	V	10,612,744	C → T	1.00	IG	—	Core	—
1C	V	12,243,975	T → A	1.00	Intron	—	Core	YES
1C	V	15,249,726	A → T	1.00	IG	—	Core	—
1C	V	17,283,653	T → A	1.00	IG	—	Arm	—
1C	V	17,356,945	G → T	1.00	Exon	M → I	Arm	NO
1C	V	18,604,560	A → T	1.00	Intron	—	Arm	NO
1C	V	18,942,224	G → A	1.00	Exon	E → K	Arm	NO
1C	V	20,651,475	T → A	1.00	IG	—	Tip	—
1C	V	20,809,164	A → T	1.00	Intron	—	Tip	NO
1C	X	68,601	T → A	1.00	IG	—	Tip	—
1C	X	2,710,990	G → C	1.00	Exon	S → W	Arm	NO
1C	X	3,295,090	C → A	1.00	IG	—	Arm	—
1C	X	9,216,237	T → G	1.00	Intron	—	Core	NO
1C	X	12,636,015	C → T	1.00	IG	—	Arm	—
1C	X	14,382,237	C → A	1.00	IG	—	Arm	—
1C	X	15,183,466	A → G	1.00	IG	—	Arm	—
1C	X	16,590,375	C → A	1.00	IG	—	Tip	—
1C	X	17,075,600	T → C	1.00	Intron	—	Tip	NO
1D	I	2,095,999	C → T	1.00	IG	—	Arm	—
1D	I	3,979,956	C → A	1.00	IG	—	Core	—

1D	I	4,826,333	C → T	1.00	Intron	—	Core	YES
1D	I	13,281,825	T → A	1.00	Intron	—	Arm	YES
1D	II	553,791	T → A	1.00	Intron	—	Arm	NO
1D	II	728,375	C → G	1.00	Intron	—	Arm	YES
1D	II	1,656,662	A → T	1.00	Intron	—	Arm	NO
1D	II	2,214,085	G → T	1.00	IG	—	Arm	—
1D	II	3,189,967	T → C	1.00	Exon	Synonymous	Arm	NO
1D	II	6,897,871	A → G	1.00	IG	—	Core	—
1D	II	7,330,365	G → C	1.00	Exon	L → V	Core	NO
1D	II	7,727,737	A → G	1.00	Intron	—	Core	NO
1D	II	8,285,984	T → A	1.00	IG	—	Core	—
1D	II	11,700,436	C → T	1.00	Intron	—	Core	YES
1D	III	20,140	T → A	1.00	IG	—	Tip	—
1D	III	595,685	C → T	1.00	Exon	G → S	Arm	NO
1D	III	1,632,871	T → A	1.00	Intron	—	Arm	NO
1D	III	2,561,601	C → A	1.00	IG	—	Arm	—
1D	III	3,633,004	T → A	1.00	IG	—	Arm	—
1D	III	5,035,795	G → A	1.00	Exon	Synonymous	Core	NO
1D	III	5,998,203	G → A	1.00	Intron	—	Core	YES
1D	III	7,002,782	G → A	1.00	Intron	—	Core	NO
1D	III	7,845,914	A → T	1.00	IG	—	Core	—
1D	III	12,477,018	T → C	1.00	Intron	—	Arm	NO
1D	III	12,925,442	T → A	1.00	Intron	—	Arm	NO
1D	III	13,109,981	T → C	1.00	Intron	—	Arm	NO
1D	III	13,131,284	G → A	1.00	Intron	—	Arm	NO
1D	IV	1,104,590	A → C	1.00	Exon	Y → D	Arm	NO
1D	IV	3,059,225	G → T	1.00	Intron	—	Arm	YES
1D	IV	7,308,281	C → G	1.00	Exon	Q → E	Core	NO
1D	IV	7,406,240	C → T	1.00	Intron	—	Core	NO
1D	IV	8,720,097	C → A	1.00	IG	—	Core	—
1D	IV	11,007,900	C → T	1.00	IG	—	Core	—

1D	IV	11,149,383	A → T	1.00	Intron	–	Core	YES
1D	IV	11,531,397	A → T	1.00	Intron	–	Core	NO
1D	IV	12,234,271	C → T	1.00	Exon	Synonymous	Core	NO
1D	IV	12,301,300	A → T	1.00	IG	–	Core	–
1D	IV	17,014,003	G → T	1.00	Intron	–	Tip	YES
1D	V	2,081,125	T → A	1.00	IG	–	Arm	–
1D	V	3,477,601	C → A	1.00	IG	–	Arm	–
1D	V	3,838,012	G → A	1.00	IG	–	Arm	–
1D	V	5,384,593	T → G	1.00	IG	–	Arm	–
1D	V	16,440,292	T → A	1.00	IG	–	Core	–
1D	V	16,814,180	A → T	1.00	Exon	I → F	Arm	YES
1D	V	19,269,391	T → A	1.00	Intron	–	Arm	NO
1D	V	19,495,953	C → T	1.00	IG	–	Arm	–
1D	V	19,779,939	G → A	1.00	IG	–	Arm	–
1D	V	20,315,822	A → T	1.00	IG	–	Arm	–
1D	X	2,137,944	T → G	1.00	IG	–	Arm	–
1D	X	2,477,766	G → T	1.00	Intron	–	Arm	NO
1D	X	2,903,082	C → T	1.00	IG	–	Arm	–
1D	X	6,877,978	A → T	1.00	IG	–	Core	–
1D	X	6,997,743	T → C	1.00	Exon	Synonymous	Core	NO
1D	X	7,637,935	G → T	1.00	IG	–	Core	–
1D	X	9,039,668	G → A	1.00	IG	–	Core	–
1D	X	10,664,326	C → A	1.00	Intron	–	Core	NO
1D	X	11,676,739	A → T	1.00	Intron	–	Core	NO
1D	X	15,047,070	C → T	1.00	IG	–	Arm	–
1D	X	16,071,411	G → A	1.00	IG	–	Arm	–
1E	I	251,680	G → C	1.00	IG	–	Tip	–
1E	I	637,219	A → T	1.00	Intron	–	Arm	YES
1E	I	972,206	A → G	1.00	Intron	–	Arm	NO
1E	I	1,205,037	A → T	1.00	Intron	–	Arm	NO
1E	I	1,248,429	T → A	1.00	Intron	–	Arm	YES

1E	I	2,413,129	G → T	1.00	IG	—	Arm	—
1E	I	2,753,496	G → C	1.00	IG	—	Arm	—
1E	I	3,066,117	T → A	1.00	Intron	—	Arm	YES
1E	I	4,993,905	C → T	1.00	Intron	—	Core	NO
1E	I	9,932,451	A → T	1.00	Exon	L → M	Core	YES
1E	I	10,236,853	A → T	1.00	IG	—	Core	—
1E	I	11,031,429	A → T	1.00	IG	—	Core	—
1E	I	11,221,576	G → T	1.00	Exon	A → D	Arm	YES
1E	I	11,331,428	G → T	1.00	Intron	—	Arm	YES
1E	I	11,615,723	G → A	1.00	Intron	—	Arm	YES
1E	I	12,834,111	G → C	1.00	Exon	Synonymous	Arm	NO
1E	II	232,835	A → T	1.00	IG	—	Tip	—
1E	II	794,792	T → A	1.00	IG	—	Arm	—
1E	II	2,408,992	A → G	1.00	IG	—	Arm	—
1E	II	2,494,314	T → C	1.00	Intron	—	Arm	NO
1E	II	3,128,378	G → A	1.00	IG	—	Arm	—
1E	II	3,135,375	A → T	1.00	IG	—	Arm	—
1E	II	5,418,243	A → T	1.00	Intron	—	Core	NO
1E	II	8,332,679	C → T	1.00	Exon	Synonymous	Core	NO
1E	II	8,831,568	T → G	1.00	IG	—	Core	—
1E	II	14,487,298	G → T	1.00	Exon	Q → K	Arm	YES
1E	III	696,286	C → A	1.00	Intron	—	Arm	NO
1E	III	3,079,453	C → T	1.00	Intron	—	Arm	YES
1E	III	4,838,033	G → A	1.00	Intron	—	Core	NO
1E	III	6,456,744	A → G	1.00	Intron	—	Core	YES
1E	III	6,679,856	T → G	1.00	Intron	—	Core	NO
1E	III	7,326,059	C → G	1.00	Intron	—	Core	YES
1E	III	8,178,441	A → T	1.00	IG	—	Core	—
1E	III	10,274,195	T → A	1.00	Intron	—	Core	NO
1E	III	10,997,064	A → T	1.00	IG	—	Arm	—
1E	III	11,319,647	A → T	1.00	Intron	—	Arm	YES

1E	III	12,563,346	G → A	1.00	Intron	—	Arm	NO
1E	III	13,022,142	T → A	1.00	Intron	—	Arm	NO
1E	IV	3,187,028	C → T	1.00	Intron	—	Arm	NO
1E	IV	5,132,644	A → T	1.00	Intron	—	Core	YES
1E	IV	5,230,525	G → C	1.00	IG	—	Core	—
1E	IV	10,593,437	T → C	1.00	Intron	—	Core	NO
1E	IV	13,257,214	A → G	1.00	Exon	* → W	Arm	NO
1E	IV	13,347,593	C → T	1.00	IG	—	Arm	—
1E	IV	13,389,700	A → T	1.00	Intron	—	Arm	YES
1E	IV	14,249,538	T → A	1.00	Intron	—	Arm	NO
1E	IV	15,124,561	T → G	1.00	IG	—	Arm	—
1E	V	1,241,169	G → A	1.00	IG	—	Arm	—
1E	V	6,706,759	G → A	1.00	Exon	T → M	Core	YES
1E	V	7,249,869	T → G	1.00	IG	—	Core	—
1E	V	8,460,300	C → G	1.00	Exon	Synonymous	Core	YES
1E	V	8,460,376	C → G	1.00	Exon	* → S	Core	YES
1E	V	9,314,410	C → A	1.00	IG	—	Core	—
1E	V	9,561,612	C → T	1.00	Exon	D → N	Core	NO
1E	V	13,707,003	A → T	1.00	Intron	—	Core	NO
1E	V	14,192,546	A → G	1.00	IG	—	Core	—
1E	V	15,421,230	C → A	1.00	IG	—	Core	—
1E	V	16,111,693	C → G	1.00	IG	—	Core	—
1E	V	17,703,601	A → T	1.00	IG	—	Arm	—
1E	V	17,784,209	C → T	1.00	IG	—	Arm	—
1E	V	18,410,506	A → T	1.00	IG	—	Arm	—
1E	V	18,581,126	C → A	1.00	IG	—	Arm	—
1E	V	19,529,232	T → C	1.00	Intron	—	Arm	YES
1E	V	20,444,134	C → A	1.00	IG	—	Tip	—
1E	V	20,916,217	C → A	1.00	Intron	—	Tip	NO
1E	X	103,644	T → A	1.00	Intron	—	Tip	NO
1E	X	1,398,550	G → T	1.00	IG	—	Arm	—

1E	X	1,479,564	A → G	1.00	Exon	K → R	Arm	YES
1E	X	3,251,915	T → G	1.00	IG	—	Arm	—
1E	X	6,531,949	A → T	1.00	IG	—	Core	—
1E	X	6,819,578	G → A	1.00	Exon	E → K	Core	YES
1E	X	7,150,852	C → A	1.00	Intron	—	Core	NO
1E	X	7,429,166	C → A	1.00	IG	—	Core	—
1E	X	8,464,884	G → A	1.00	IG	—	Core	—
1E	X	13,245,730	C → T	1.00	Intron	—	Arm	NO
1E	X	13,839,187	G → A	1.00	IG	—	Arm	—
1F	I	171,651	T → A	1.00	Intron	—	Tip	NO
1F	I	3,102,740	A → G	1.00	IG	—	Arm	—
1F	I	3,521,581	G → A	1.00	Exon	Synonymous	Arm	YES
1F	I	5,977,894	G → A	1.00	IG	—	Core	—
1F	I	7,145,739	A → G	1.00	Intron	—	Core	NO
1F	I	10,197,695	T → A	1.00	IG	—	Core	—
1F	I	11,272,910	T → C	1.00	Intron	—	Arm	NO
1F	I	11,497,983	C → T	1.00	IG	—	Arm	—
1F	I	13,796,515	C → A	1.00	Exon	K → N	Arm	NO
1F	II	2,185,717	G → A	1.00	Exon	Q → *	Arm	NO
1F	II	5,082,206	A → G	1.00	Exon	* → R	Core	YES
1F	II	6,171,848	C → A	1.00	Intron	—	Core	NO
1F	II	6,711,523	A → T	1.00	Intron	—	Core	NO
1F	II	7,737,285	G → A	1.00	Exon	E → K	Core	NO
1F	II	8,166,824	A → T	1.00	Exon	K → I	Core	YES
1F	II	8,381,863	T → A	1.00	Exon	F → Y	Core	NO
1F	II	12,687,165	T → A	1.00	IG	—	Arm	—
1F	II	13,366,344	C → A	1.00	IG	—	Arm	—
1F	III	308,488	T → G	1.00	Intron	—	Tip	YES
1F	III	432,699	C → A	1.00	IG	—	Tip	—
1F	III	1,222,433	C → A	1.00	IG	—	Arm	—
1F	III	2,414,652	T → A	1.00	Intron	—	Arm	YES

1F	III	2,907,539	T → A	1.00	IG	—	Arm	—
1F	III	3,177,361	G → A	1.00	Intron	—	Arm	YES
1F	III	4,387,331	T → A	1.00	Intron	—	Core	NO
1F	III	6,160,340	C → G	1.00	Exon	H → Q	Core	NO
1F	III	7,727,248	C → T	1.00	Exon	T → M	Core	YES
1F	III	7,940,973	A → G	1.00	IG	—	Core	—
1F	III	9,777,946	C → A	1.00	Exon	S → Y	Core	YES
1F	III	12,203,761	T → A	1.00	IG	—	Arm	—
1F	III	12,280,283	T → A	1.00	Intron	—	Arm	YES
1F	III	12,532,807	C → G	1.00	IG	—	Arm	—
1F	IV	1,089,259	G → A	1.00	Exon	P → S	Arm	YES
1F	IV	1,293,418	A → G	1.00	Intron	—	Arm	NO
1F	IV	1,542,774	G → T	1.00	IG	—	Arm	—
1F	IV	3,057,838	A → T	1.00	Intron	—	Arm	YES
1F	IV	3,095,681	A → C	1.00	IG	—	Arm	—
1F	IV	4,324,054	T → A	1.00	IG	—	Core	—
1F	IV	11,746,147	T → C	1.00	Exon	W → R	Core	NO
1F	IV	14,800,272	A → T	1.00	Intron	—	Arm	YES
1F	IV	16,723,515	A → C	1.00	Exon	K → Q	Arm	NO
1F	IV	17,377,931	C → T	1.00	Exon	Synonymous	Tip	NO
1F	V	402,505	A → T	1.00	Exon	* → K	Tip	NO
1F	V	1,344,457	G → T	1.00	Intron	—	Arm	NO
1F	V	2,196,919	C → T	1.00	IG	—	Arm	—
1F	V	3,106,349	A → C	1.00	Intron	—	Arm	NO
1F	V	5,095,679	T → C	1.00	Intron	—	Arm	NO
1F	V	5,113,697	T → A	1.00	Exon	E → D	Arm	YES
1F	V	5,163,362	C → T	1.00	IG	—	Arm	—
1F	V	5,257,741	T → A	1.00	IG	—	Arm	—
1F	V	5,641,993	A → T	1.00	IG	—	Arm	—
1F	V	6,359,188	A → C	1.00	Exon	Q → H	Core	NO
1F	V	6,361,381	C → A	1.00	Exon	A → E	Core	NO

1F	V	7,017,836	A → G	1.00	Intron	—	Core	NO
1F	V	12,102,261	A → T	1.00	Intron	—	Core	NO
1F	V	14,443,599	T → C	1.00	Intron	—	Core	YES
1F	V	15,075,714	C → G	1.00	Intron	—	Core	YES
1F	V	15,168,294	A → T	1.00	IG	—	Core	—
1F	V	19,901,343	C → T	1.00	Exon	R → Q	Arm	YES
1F	X	735,910	T → C	1.00	IG	—	Arm	—
1F	X	789,938	A → T	1.00	Exon	* → L	Arm	NO
1F	X	2,581,254	T → A	1.00	IG	—	Arm	—
1F	X	2,795,833	C → G	1.00	Intron	—	Arm	YES
1F	X	4,150,818	A → G	1.00	Intron	—	Arm	NO
1F	X	5,915,913	G → A	1.00	IG	—	Arm	—
1F	X	15,628,882	T → A	1.00	Intron	—	Arm	NO
1F	X	17,207,171	G → A	1.00	Intron	—	Tip	NO
1G	I	297,975	G → T	1.00	Intron	—	Tip	YES
1G	I	3,166,976	T → A	1.00	Intron	—	Arm	YES
1G	I	8,333,167	T → A	1.00	Exon	L → *	Core	NO
1G	I	8,362,762	T → C	1.00	Intron	—	Core	YES
1G	I	12,097,019	G → A	1.00	Intron	—	Arm	NO
1G	II	2,048,407	A → T	1.00	IG	—	Arm	—
1G	II	2,206,897	G → T	1.00	IG	—	Arm	—
1G	II	2,375,834	G → A	1.00	Exon	G → D	Arm	NO
1G	II	8,050,344	A → T	1.00	Exon	F → L	Core	NO
1G	II	10,490,952	A → G	1.00	IG	—	Core	—
1G	II	12,692,797	T → C	1.00	IG	—	Arm	—
1G	II	13,354,566	A → T	1.00	IG	—	Arm	—
1G	II	14,982,210	A → T	1.00	Intron	—	Tip	NO
1G	III	1,133,881	A → T	1.00	Intron	—	Arm	NO
1G	III	1,603,825	G → A	1.00	IG	—	Arm	—
1G	III	2,294,076	C → A	1.00	Exon	F → L	Arm	NO
1G	III	3,024,879	G → A	1.00	Intron	—	Arm	NO

1G	III	5,270,506	T → A	1.00	Intron	—	Core	NO
1G	III	6,959,909	A → T	1.00	Exon	L → I	Core	YES
1G	III	7,004,421	G → A	1.00	Intron	—	Core	NO
1G	III	7,504,163	T → G	1.00	IG	—	Core	—
1G	III	10,399,956	G → T	1.00	Intron	—	Arm	YES
1G	III	10,867,837	T → A	1.00	Intron	—	Arm	YES
1G	III	12,922,603	A → G	1.00	Intron	—	Arm	NO
1G	III	13,230,081	A → G	1.00	IG	—	Tip	—
1G	IV	3,584,917	C → G	1.00	Exon	R → P	Arm	NO
1G	IV	6,612,112	G → T	1.00	Intron	—	Core	NO
1G	IV	8,058,815	A → T	1.00	IG	—	Core	—
1G	IV	11,504,929	G → T	1.00	Exon	M → I	Core	NO
1G	IV	11,793,629	G → T	1.00	IG	—	Core	—
1G	IV	15,554,992	G → A	1.00	IG	—	Arm	—
1G	V	605,086	C → G	1.00	IG	—	Tip	—
1G	V	1,460,256	A → T	1.00	IG	—	Arm	—
1G	V	1,496,399	C → G	1.00	Exon	Synonymous	Arm	NO
1G	V	12,040,653	C → T	1.00	Intron	—	Core	YES
1G	V	12,357,224	T → G	1.00	IG	—	Core	—
1G	V	12,697,292	G → A	1.00	Exon	Synonymous	Core	YES
1G	V	15,510,622	T → A	1.00	Intron	—	Core	NO
1G	V	15,807,685	G → A	1.00	IG	—	Core	—
1G	V	15,807,696	G → A	1.00	IG	—	Core	—
1G	V	19,825,243	A → T	1.00	Intron	—	Arm	NO
1G	X	251,254	G → A	1.00	IG	—	Tip	—
1G	X	1,312,173	A → T	1.00	Intron	—	Arm	NO
1G	X	4,259,285	A → T	1.00	IG	—	Arm	—
1G	X	4,851,746	T → C	1.00	Intron	—	Arm	NO
1G	X	5,114,298	G → T	1.00	Exon	S → R	Arm	NO
1G	X	7,562,966	G → A	1.00	Exon	V → I	Core	NO
1G	X	7,666,965	C → A	1.00	Exon	G → C	Core	NO

1G	X	9,142,940	G → C	1.00	Exon	D → H	Core	NO
1G	X	9,577,367	G → T	1.00	IG	—	Core	—
1G	X	10,399,592	G → A	1.00	Exon	Synonymous	Core	NO
1G	X	12,694,950	G → C	1.00	Intron	—	Arm	NO
1G	X	14,939,740	G → A	1.00	Exon	Synonymous	Arm	NO
1G	X	16,560,875	G → A	1.00	Exon	W → *	Tip	NO
1H	I	451,427	G → C	1.00	Exon	W → C	Tip	YES
1H	I	1,203,642	A → T	1.00	Intron	—	Arm	NO
1H	I	2,718,391	G → A	1.00	Intron	—	Arm	NO
1H	I	4,595,261	C → A	1.00	IG	—	Core	—
1H	I	8,038,081	A → T	1.00	Intron	—	Core	NO
1H	I	11,840,480	A → T	1.00	Intron	—	Arm	NO
1H	II	1,389,812	A → C	1.00	Intron	—	Arm	NO
1H	II	1,527,610	A → T	1.00	IG	—	Arm	—
1H	II	1,722,852	C → G	1.00	Exon	N → K	Arm	NO
1H	II	1,995,494	C → T	1.00	Exon	Synonymous	Arm	NO
1H	II	2,513,105	C → A	1.00	Intron	—	Arm	NO
1H	II	10,399,560	C → G	1.00	IG	—	Core	—
1H	II	11,792,454	G → A	1.00	Intron	—	Core	NO
1H	II	12,230,533	A → T	1.00	Intron	—	Arm	NO
1H	II	14,019,446	T → G	1.00	Exon	T → P	Arm	NO
1H	III	2,291,000	A → T	1.00	IG	—	Arm	—
1H	III	3,664,922	C → A	1.00	IG	—	Arm	—
1H	III	5,534,123	A → T	1.00	Intron	—	Core	NO
1H	III	7,914,603	T → A	1.00	Exon	N → Y	Core	YES
1H	III	8,015,102	C → T	1.00	Intron	—	Core	YES
1H	III	8,081,147	A → T	1.00	Intron	—	Core	YES
1H	III	8,575,094	T → C	1.00	IG	—	Core	—
1H	III	11,656,794	T → A	1.00	IG	—	Arm	—
1H	III	12,425,324	G → T	1.00	IG	—	Arm	—
1H	III	12,579,799	G → T	1.00	IG	—	Arm	—

1H	III	12,590,466	A → T	1.00		IG	—	Arm	—
1H	IV	387,293	A → G	1.00	Exon	K → E	Tip	YES	
1H	IV	3,192,640	G → A	1.00		IG	—	Arm	—
1H	IV	4,451,412	A → C	1.00	Intron	—	Core	NO	
1H	IV	11,001,324	T → A	1.00		IG	—	Core	—
1H	IV	13,062,661	G → C	1.00		IG	—	Arm	—
1H	IV	13,120,501	C → A	1.00	Exon	Synonymous	Arm	NO	
1H	IV	14,182,891	G → C	1.00	Exon	A → P	Arm	NO	
1H	IV	14,811,864	A → T	1.00		IG	—	Arm	—
1H	V	1,454,760	C → T	1.00		IG	—	Arm	—
1H	V	2,955,886	C → T	1.00		IG	—	Arm	—
1H	V	4,176,774	G → C	1.00	Exon	Synonymous	Arm	YES	
1H	V	6,751,577	G → A	1.00		IG	—	Core	—
1H	V	7,872,315	G → A	1.00		IG	—	Core	—
1H	V	10,897,227	A → T	1.00		IG	—	Core	—
1H	V	15,373,521	A → T	1.00		IG	—	Core	—
1H	V	16,803,191	T → A	1.00	Intron	—	Arm	YES	
1H	V	16,953,169	C → A	1.00	Intron	—	Arm	NO	
1H	V	18,785,193	T → A	1.00	Intron	—	Arm	NO	
1H	X	868,213	C → A	1.00	Intron	—	Arm	NO	
1H	X	2,022,541	A → G	1.00	Exon	N → S	Arm	NO	
1H	X	2,539,787	C → A	1.00		IG	—	Arm	—
1H	X	4,740,289	C → A	1.00	Intron	—	Arm	YES	
1H	X	5,344,810	T → A	1.00	Intron	—	Arm	YES	
1H	X	6,289,115	T → A	1.00	Exon	K → *	Core	NO	
1H	X	6,761,248	T → C	1.00	Intron	—	Core	NO	
1H	X	7,253,191	C → G	1.00	Exon	Q → H	Core	NO	
1H	X	7,268,848	T → A	1.00	Exon	H → L	Core	NO	
1H	X	10,743,574	C → G	1.00	Exon	H → Q	Core	NO	
1H	X	11,676,739	A → T	1.00	Intron	—	Core	NO	
1H	X	13,635,871	G → A	1.00		IG	—	Arm	—

1H	X	13,953,422	C → T	1.00		Exon	Synonymous	Arm	YES
1H	X	14,575,385	T → A	1.00		Intron	—	Arm	NO
1H	X	16,360,052	C → T	1.00		IG	—	Arm	—
1H	X	16,986,189	A → T	1.00		IG	—	Tip	—
1K	I	1,315,141	C → T	1.00		Intron	—	Arm	NO
1K	I	5,288,179	C → A	1.00		Exon	V → F	Core	YES
1K	I	7,065,746	G → A	1.00		Intron	—	Core	NO
1K	I	8,637,795	T → C	1.00		Intron	—	Core	YES
1K	I	11,946,435	C → T	1.00		IG	—	Arm	—
1K	I	12,985,284	T → C	1.00		IG	—	Arm	—
1K	I	13,149,364	C → G	1.00		IG	—	Arm	—
1K	I	14,779,404	G → T	1.00		Intron	—	Arm	YES
1K	II	729,928	G → A	1.00		Intron	—	Arm	YES
1K	II	1,142,252	T → C	1.00		Exon	K → E	Arm	NO
1K	II	4,592,114	T → A	1.00		Intron	—	Arm	YES
1K	II	10,346,980	T → A	1.00		Exon	* → K	Core	NO
1K	II	12,131,451	A → C	1.00		IG	—	Arm	—
1K	II	12,770,269	T → A	1.00		Intron	—	Arm	NO
1K	II	13,747,241	A → C	1.00		Intron	—	Arm	YES
1K	II	14,903,248	G → A	1.00		Intron	—	Tip	NO
1K	III	2,980,942	C → T	1.00		IG	—	Arm	—
1K	III	7,140,148	A → C	1.00		Intron	—	Core	NO
1K	III	7,223,855	T → C	1.00		Intron	—	Core	YES
1K	III	13,297,295	G → A	1.00		Exon	E → K	Tip	YES
1K	III	13,674,659	C → G	1.00		Exon	Synonymous	Tip	YES
1K	IV	1,494,494	T → C	1.00		Intron	—	Arm	YES
1K	IV	3,465,669	C → T	1.00		Exon	Q → *	Arm	NO
1K	IV	4,609,673	G → C	1.00		Exon	R → G	Core	NO
1K	IV	6,550,355	T → C	1.00		Exon	Synonymous	Core	YES
1K	IV	6,638,820	C → G	1.00		Intron	—	Core	NO
1K	IV	10,797,933	G → A	1.00		IG	—	Core	—

1K	IV	13,278,116	A → T	1.00	Intron	—	Arm	YES
1K	IV	16,792,387	G → T	1.00	IG	—	Tip	—
1K	V	2,486,788	T → A	1.00	Intron	—	Arm	NO
1K	V	6,170,251	C → A	1.00	Exon	V → F	Core	NO
1K	V	8,030,404	G → A	1.00	Exon	G → R	Core	YES
1K	V	10,114,910	G → T	1.00	Exon	C → F	Core	NO
1K	V	12,284,063	A → T	1.00	UTR	—	Core	YES
1K	V	15,024,814	T → A	1.00	Exon	F → L	Core	NO
1K	V	16,051,914	G → A	1.00	IG	—	Core	—
1K	V	19,134,709	A → G	1.00	IG	—	Arm	—
1K	X	997,993	G → A	1.00	IG	—	Arm	—
1K	X	2,249,686	T → A	1.00	IG	—	Arm	—
1K	X	2,883,621	C → A	1.00	IG	—	Arm	—
1K	X	3,788,050	C → T	1.00	Exon	Synonymous	Arm	NO
1K	X	4,549,884	C → T	1.00	Exon	R → H	Arm	NO
1K	X	6,519,720	G → A	1.00	Intron	—	Core	NO
1K	X	6,853,700	C → A	1.00	Exon	P → Q	Core	NO
1K	X	8,167,946	C → A	1.00	IG	—	Core	—
1K	X	12,692,698	C → T	1.00	Exon	Synonymous	Arm	NO
1K	X	13,044,262	T → A	1.00	IG	—	Arm	—
1K	X	13,337,541	G → A	1.00	IG	—	Arm	—
1K	X	13,891,591	A → T	1.00	Intron	—	Arm	NO
1K	X	16,652,557	C → T	1.00	Exon	G → R	Tip	NO
1K	X	16,983,704	G → A	1.00	IG	—	Tip	—
1M	I	1,624,653	A → T	1.00	Intron	—	Arm	YES
1M	I	1,976,509	G → A	1.00	IG	—	Arm	—
1M	I	6,176,020	C → G	1.00	IG	—	Core	—
1M	I	7,752,646	G → A	1.00	IG	—	Core	—
1M	I	8,760,125	A → T	1.00	IG	—	Core	—
1M	I	9,181,631	T → A	1.00	IG	—	Core	—
1M	I	12,411,891	G → A	1.00	IG	—	Arm	—

1M	I	14,495,775	T → C	1.00	Intron	—	Arm	YES
1M	I	14,514,630	A → T	1.00	Intron	—	Arm	NO
1M	II	1,367,922	T → A	1.00	IG	—	Arm	—
1M	II	5,042,926	C → T	1.00	IG	—	Core	—
1M	II	6,872,450	A → T	1.00	Exon	C → S	Core	YES
1M	II	8,244,801	T → G	1.00	Intron	—	Core	NO
1M	II	9,403,566	C → T	1.00	IG	—	Core	—
1M	II	9,851,050	T → C	1.00	IG	—	Core	—
1M	II	11,003,792	G → T	1.00	Intron	—	Core	NO
1M	II	11,438,155	A → G	1.00	Intron	—	Core	NO
1M	II	14,229,109	T → A	1.00	Intron	—	Arm	NO
1M	II	14,257,037	T → A	1.00	IG	—	Arm	—
1M	II	14,794,593	C → G	1.00	IG	—	Tip	—
1M	III	817,670	A → G	1.00	Intron	—	Arm	NO
1M	III	1,084,801	A → T	1.00	Intron	—	Arm	YES
1M	III	1,150,019	G → A	1.00	IG	—	Arm	—
1M	III	3,440,966	C → T	1.00	Exon	Synonymous	Arm	NO
1M	III	3,694,468	A → G	1.00	IG	—	Arm	—
1M	III	9,346,062	T → C	1.00	IG	—	Core	—
1M	III	10,354,509	C → T	1.00	Exon	Q → *	Arm	YES
1M	III	10,785,465	C → T	1.00	Intron	—	Arm	NO
1M	III	11,168,486	T → A	1.00	Intron	—	Arm	NO
1M	IV	821,580	T → A	1.00	Intron	—	Arm	NO
1M	IV	1,158,769	A → G	1.00	IG	—	Arm	—
1M	IV	1,595,102	C → A	1.00	Intron	—	Arm	YES
1M	IV	2,876,701	A → G	1.00	Intron	—	Arm	YES
1M	IV	3,903,580	C → A	1.00	Exon	A → E	Core	NO
1M	IV	7,057,358	G → T	1.00	IG	—	Core	—
1M	IV	9,032,505	A → G	1.00	Intron	—	Core	NO
1M	IV	14,031,367	A → G	1.00	IG	—	Arm	—
1M	IV	16,174,310	T → A	1.00	IG	—	Arm	—

1M	V	4,310,252	C → G	1.00	IG	—	Arm	—
1M	V	4,600,051	G → T	1.00	Intron	—	Arm	YES
1M	V	8,132,754	A → T	1.00	Intron	—	Core	YES
1M	V	9,365,895	C → T	1.00	IG	—	Core	—
1M	V	13,668,439	G → T	1.00	Exon	G → C	Core	YES
1M	V	13,828,599	G → A	1.00	Intron	—	Core	NO
1M	V	17,637,823	A → T	1.00	IG	—	Arm	—
1M	V	17,689,357	A → T	1.00	Intron	—	Arm	NO
1M	V	18,970,925	T → A	1.00	Intron	—	Arm	NO
1M	V	19,607,219	T → G	1.00	IG	—	Arm	—
1M	V	20,505,378	A → G	1.00	IG	—	Tip	—
1M	X	761,145	A → T	1.00	IG	—	Arm	—
1M	X	842,082	C → T	1.00	IG	—	Arm	—
1M	X	2,052,174	A → G	1.00	Exon	I → V	Arm	NO
1M	X	2,177,732	A → T	1.00	IG	—	Arm	—
1M	X	2,330,942	G → T	1.00	IG	—	Arm	—
1M	X	2,448,910	C → T	1.00	Intron	—	Arm	NO
1M	X	4,481,125	A → T	1.00	IG	—	Arm	—
1M	X	6,241,408	G → A	1.00	Exon	G → R	Core	YES
1M	X	6,501,258	T → C	1.00	Intron	—	Core	NO
1M	X	9,222,676	C → T	1.00	Exon	R → Q	Core	NO
1M	X	11,391,372	G → T	1.00	Intron	—	Core	NO
1M	X	11,924,759	A → T	1.00	Intron	—	Core	NO
1M	X	15,837,512	T → C	1.00	Intron	—	Arm	NO
1N	I	980,010	G → A	1.00	IG	—	Arm	—
1N	I	1,406,931	A → C	1.00	Intron	—	Arm	YES
1N	I	1,507,376	T → A	1.00	Intron	—	Arm	NO
1N	I	4,248,670	T → A	1.00	Intron	—	Core	YES
1N	I	4,452,228	C → T	1.00	Intron	—	Core	NO
1N	I	9,436,097	G → A	1.00	Intron	—	Core	NO
1N	I	12,657,917	A → T	1.00	Exon	L → *	Arm	NO

1N	I	14,712,337	T → C	1.00	Intron	—	Arm	YES
1N	II	11,959,265	A → G	1.00	Exon	N → S	Core	NO
1N	II	12,638,187	T → G	1.00	Intron	—	Arm	NO
1N	II	13,673,677	G → T	1.00	Intron	—	Arm	YES
1N	II	14,300,619	C → A	1.00	Intron	—	Arm	NO
1N	III	563,185	C → T	1.00	Intron	—	Arm	NO
1N	III	1,081,617	A → G	1.00	Intron	—	Arm	YES
1N	III	1,895,253	C → G	1.00	Intron	—	Arm	NO
1N	III	2,407,293	A → T	1.00	Intron	—	Arm	YES
1N	III	2,411,144	A → T	1.00	Exon	I → N	Arm	YES
1N	III	2,995,082	T → A	1.00	IG	—	Arm	—
1N	III	3,618,134	A → T	1.00	Intron	—	Arm	NO
1N	III	6,751,878	T → A	1.00	Intron	—	Core	NO
1N	III	10,376,773	T → C	1.00	IG	—	Arm	—
1N	III	11,963,005	A → G	1.00	Intron	—	Arm	NO
1N	IV	1,748,891	G → A	1.00	Intron	—	Arm	YES
1N	IV	5,647,953	A → T	1.00	IG	—	Core	—
1N	IV	8,884,288	A → G	1.00	IG	—	Core	—
1N	IV	10,027,627	G → T	1.00	Exon	N → K	Core	YES
1N	IV	10,897,888	A → C	1.00	Exon	S → A	Core	NO
1N	IV	10,944,581	G → A	1.00	IG	—	Core	—
1N	IV	11,824,225	T → A	1.00	IG	—	Core	—
1N	IV	16,525,109	C → G	1.00	Exon	V → L	Arm	NO
1N	V	5,811,968	T → G	1.00	IG	—	Arm	—
1N	V	9,027,052	C → A	1.00	IG	—	Core	—
1N	V	9,360,125	G → A	1.00	IG	—	Core	—
1N	V	9,632,158	A → G	1.00	Exon	N → S	Core	NO
1N	V	10,285,793	T → A	1.00	IG	—	Core	—
1N	V	14,375,245	G → A	1.00	Intron	—	Core	NO
1N	V	15,019,656	C → G	1.00	Exon	K → N	Core	NO
1N	V	15,331,799	C → T	1.00	Exon	R → C	Core	NO

1N	V	16,295,829	T → G	1.00		IG	—	Core	—
1N	V	16,749,674	C → T	1.00		Intron	—	Arm	NO
1N	V	16,787,226	A → T	1.00		Intron	—	Arm	NO
1N	V	18,359,775	A → T	1.00		IG	—	Arm	—
1N	V	19,109,789	G → C	1.00		Intron	—	Arm	NO
1N	V	20,680,636	C → A	1.00		IG	—	Tip	—
1N	V	20,884,621	C → T	1.00		Exon	Synonymous	Tip	NO
1N	X	3,202,370	T → G	1.00		IG	—	Arm	—
1N	X	3,650,247	A → G	1.00		IG	—	Arm	—
1N	X	4,416,679	T → C	1.00		IG	—	Arm	—
1N	X	4,662,351	C → T	1.00		IG	—	Arm	—
1N	X	7,128,558	T → G	1.00		IG	—	Core	—
1N	X	10,231,159	G → A	1.00		IG	—	Core	—
1N	X	11,676,739	A → T	1.00		Intron	—	Core	NO
1N	X	11,996,076	G → C	1.00		IG	—	Core	—
1N	X	14,261,973	A → G	1.00		Intron	—	Arm	NO
1N	X	14,651,630	C → A	1.00		IG	—	Arm	—
1N	X	14,742,422	T → A	1.00		IG	—	Arm	—
1O	I	458,271	A → T	1.00		Exon	E → D	Tip	YES
1O	I	580,168	C → A	1.00		IG	—	Arm	—
1O	I	996,228	G → A	1.00		Intron	—	Arm	NO
1O	I	1,090,078	C → G	1.00		Exon	G → A	Arm	NO
1O	I	2,765,719	G → A	1.00		Intron	—	Arm	NO
1O	I	3,131,460	T → A	1.00		IG	—	Arm	—
1O	I	4,304,373	G → A	1.00		Intron	—	Core	YES
1O	I	4,986,849	C → A	1.00		IG	—	Core	—
1O	I	7,909,945	T → C	1.00		Intron	—	Core	NO
1O	I	8,880,476	C → G	1.00		Exon	Q → E	Core	NO
1O	I	11,486,824	T → A	1.00		IG	—	Arm	—
1O	I	11,880,787	T → G	1.00		Intron	—	Arm	NO
1O	I	13,012,096	A → T	1.00		Intron	—	Arm	YES

1O	I	13,773,528	T → G	1.00	Intron	—	Arm	YES
1O	II	1,175,501	C → A	1.00	IG	—	Arm	—
1O	II	1,656,662	A → T	1.00	Intron	—	Arm	NO
1O	II	2,333,946	T → A	1.00	Exon	N → K	Arm	NO
1O	II	2,487,549	C → A	1.00	IG	—	Arm	—
1O	II	2,728,122	A → T	1.00	IG	—	Arm	—
1O	II	2,818,126	C → T	1.00	Intron	—	Arm	NO
1O	II	3,373,572	G → T	1.00	IG	—	Arm	—
1O	II	5,855,516	C → T	1.00	Exon	S → L	Core	NO
1O	II	11,524,963	C → A	1.00	Exon	V → F	Core	YES
1O	II	12,090,688	C → A	1.00	IG	—	Arm	—
1O	III	30,076	A → T	1.00	IG	—	Tip	—
1O	III	226,189	C → A	1.00	Intron	—	Tip	NO
1O	III	2,362,833	A → G	1.00	IG	—	Arm	—
1O	III	5,159,098	C → T	1.00	Exon	R → H	Core	YES
1O	III	7,207,420	T → C	1.00	Exon	V → A	Core	NO
1O	III	8,748,674	G → A	1.00	Exon	H → Y	Core	YES
1O	III	9,564,080	A → T	1.00	Intron	—	Core	YES
1O	III	10,453,042	G → A	1.00	Exon	Synonymous	Arm	YES
1O	III	11,274,297	A → T	1.00	IG	—	Arm	—
1O	III	11,274,379	G → T	1.00	IG	—	Arm	—
1O	III	12,210,166	C → G	1.00	Intron	—	Arm	NO
1O	III	12,316,821	T → A	1.00	IG	—	Arm	—
1O	III	12,539,763	A → G	1.00	Intron	—	Arm	YES
1O	IV	3,164,723	T → G	1.00	IG	—	Arm	—
1O	IV	3,645,620	C → A	1.00	Exon	V → L	Arm	YES
1O	IV	3,742,056	A → T	1.00	IG	—	Arm	—
1O	IV	6,850,958	G → T	1.00	Intron	—	Core	NO
1O	IV	7,031,324	C → G	1.00	Exon	V → L	Core	YES
1O	IV	9,240,378	C → G	1.00	Intron	—	Core	YES
1O	IV	9,251,257	C → T	1.00	IG	—	Core	—

1O	IV	10,836,572	A → G	1.00	Exon	V → A	Core	NO
1O	IV	12,594,884	G → A	1.00	Exon	P → S	Core	NO
1O	IV	13,884,133	C → T	1.00	UTR	—	Arm	YES
1O	IV	14,223,531	C → A	1.00	Intron	—	Arm	YES
1O	IV	17,107,195	C → T	1.00	Exon	R → K	Tip	NO
1O	V	2,905,552	G → T	1.00	IG	—	Arm	—
1O	V	3,449,541	T → A	1.00	IG	—	Arm	—
1O	V	3,865,372	G → A	1.00	IG	—	Arm	—
1O	V	4,324,923	A → G	1.00	Intron	—	Arm	NO
1O	V	4,352,790	A → C	1.00	Intron	—	Arm	NO
1O	V	4,881,103	A → T	1.00	Intron	—	Arm	NO
1O	V	6,997,558	A → G	1.00	IG	—	Core	—
1O	V	10,027,533	G → A	1.00	Intron	—	Core	YES
1O	V	11,367,605	G → A	1.00	IG	—	Core	—
1O	V	12,446,872	C → T	1.00	Exon	C → Y	Core	NO
1O	V	13,083,665	G → A	1.00	Intron	—	Core	NO
1O	V	15,369,216	A → T	1.00	Exon	N → K	Core	NO
1O	V	18,828,132	C → T	1.00	Intron	—	Arm	NO
1O	V	19,324,032	C → T	1.00	IG	—	Arm	—
1O	V	19,571,530	G → C	1.00	Intron	—	Arm	NO
1O	V	19,977,175	T → C	1.00	Intron	—	Arm	NO
1O	V	20,840,733	G → A	1.00	Exon	C → Y	Tip	NO
1O	X	314,108	T → A	1.00	IG	—	Tip	—
1O	X	916,261	C → T	1.00	Intron	—	Arm	NO
1O	X	1,981,844	T → G	1.00	IG	—	Arm	—
1O	X	2,197,104	G → T	1.00	Exon	P → Q	Arm	NO
1O	X	2,375,828	A → T	1.00	IG	—	Arm	—
1O	X	3,741,816	G → A	1.00	Intron	—	Arm	NO
1O	X	3,996,680	T → A	1.00	IG	—	Arm	—
1O	X	4,520,365	G → A	1.00	Intron	—	Arm	NO
1O	X	5,299,254	A → T	1.00	Intron	—	Arm	NO

1O	X	5,987,169	C → A	1.00	Exon	Q → K	Arm	NO
1O	X	6,222,136	C → A	1.00	IG	—	Core	—
1O	X	8,044,450	A → G	1.00	IG	—	Core	—
1O	X	10,041,075	C → A	1.00	Intron	—	Core	NO
1O	X	11,506,635	G → T	1.00	Intron	—	Core	NO
1O	X	12,365,216	G → A	1.00	IG	—	Core	—
1O	X	12,572,459	A → T	1.00	IG	—	Arm	—
1O	X	14,230,275	G → A	1.00	Intron	—	Arm	NO
1P	I	142,547	A → G	1.00	Exon	I → V	Tip	NO
1P	I	208,489	G → T	1.00	IG	—	Tip	—
1P	I	906,054	G → T	1.00	IG	—	Arm	—
1P	I	1,233,018	C → G	1.00	Intron	—	Arm	YES
1P	I	3,427,714	A → G	1.00	Intron	—	Arm	NO
1P	I	3,427,723	T → A	1.00	Intron	—	Arm	NO
1P	I	3,428,262	C → T	1.00	Intron	—	Arm	NO
1P	I	3,428,274	G → A	1.00	Intron	—	Arm	NO
1P	I	5,623,004	A → T	1.00	Exon	K → *	Core	YES
1P	I	6,387,000	G → T	1.00	Intron	—	Core	NO
1P	I	7,671,490	A → G	1.00	Exon	Synonymous	Core	NO
1P	I	8,243,076	G → T	1.00	Exon	Synonymous	Core	NO
1P	I	10,255,724	T → G	1.00	Exon	T → P	Core	NO
1P	I	11,893,016	G → A	1.00	Exon	T → M	Arm	YES
1P	I	12,235,719	A → G	1.00	IG	—	Arm	—
1P	I	13,955,959	C → A	1.00	IG	—	Arm	—
1P	I	14,956,070	T → A	1.00	Exon	Q → L	Tip	NO
1P	II	267,219	T → A	1.00	Intron	—	Tip	NO
1P	II	1,701,298	G → A	1.00	IG	—	Arm	—
1P	II	4,059,170	C → G	1.00	Exon	T → R	Arm	NO
1P	II	5,807,049	C → A	1.00	IG	—	Core	—
1P	II	6,919,316	C → A	1.00	IG	—	Core	—
1P	II	10,000,606	C → A	1.00	Intron	—	Core	NO

1P	II	10,362,773	A → G	1.00	Intron	—	Core	NO
1P	II	10,453,477	T → A	1.00	Intron	—	Core	YES
1P	II	13,083,852	A → T	1.00	IG	—	Arm	—
1P	II	14,700,841	T → A	1.00	IG	—	Tip	—
1P	II	15,069,939	G → T	1.00	Exon	F → L	Tip	YES
1P	III	1,410,201	A → T	1.00	Intron	—	Arm	YES
1P	III	1,578,692	A → T	1.00	Intron	—	Arm	YES
1P	III	4,582,166	C → G	1.00	Intron	—	Core	YES
1P	III	5,325,032	T → A	1.00	Intron	—	Core	YES
1P	III	7,130,418	A → T	1.00	Exon	* → L	Core	NO
1P	III	7,781,404	G → A	1.00	Intron	—	Core	NO
1P	III	9,075,755	A → G	1.00	IG	—	Core	—
1P	III	9,734,542	G → T	1.00	IG	—	Core	—
1P	III	10,172,846	G → C	1.00	Intron	—	Core	NO
1P	III	10,370,129	C → T	1.00	Intron	—	Arm	NO
1P	III	11,257,759	T → A	1.00	Intron	—	Arm	NO
1P	III	11,287,269	T → A	1.00	Intron	—	Arm	NO
1P	IV	7,933,113	G → C	1.00	Intron	—	Core	NO
1P	IV	7,974,713	G → A	1.00	IG	—	Core	—
1P	IV	8,696,535	G → C	1.00	IG	—	Core	—
1P	IV	10,705,601	C → A	1.00	Intron	—	Core	NO
1P	IV	13,344,811	G → A	1.00	Intron	—	Arm	NO
1P	IV	13,451,834	G → A	1.00	Intron	—	Arm	NO
1P	IV	13,465,017	C → T	1.00	IG	—	Arm	—
1P	IV	15,400,006	C → T	1.00	IG	—	Arm	—
1P	IV	15,844,135	T → G	1.00	IG	—	Arm	—
1P	V	1,925,424	C → T	1.00	Exon	Synonymous	Arm	NO
1P	V	2,340,354	G → A	1.00	Exon	P → L	Arm	NO
1P	V	9,255,911	T → C	1.00	Exon	Synonymous	Core	NO
1P	V	12,102,260	T → A	1.00	Intron	—	Core	NO
1P	V	14,176,272	C → T	1.00	Exon	E → K	Core	NO

1P	V	15,249,786	T → G	1.00		IG	—	Core	—
1P	V	17,416,206	C → T	1.00	Exon	Synonymous	Arm	NO	
1P	V	18,160,885	C → T	1.00	Intron	—	Arm	NO	
1P	X	365,812	A → G	1.00		IG	—	Tip	—
1P	X	653,186	T → C	1.00	Intron	—	Arm	NO	
1P	X	1,027,890	A → G	1.00	Exon	S → P	Arm	YES	
1P	X	1,240,972	C → T	1.00		IG	—	Arm	—
1P	X	2,358,622	C → T	1.00		IG	—	Arm	—
1P	X	5,065,585	C → T	1.00	Exon	S → L	Arm	YES	
1P	X	5,172,975	G → T	1.00		IG	—	Arm	—
1P	X	5,523,955	C → T	1.00		IG	—	Arm	—
1P	X	7,799,447	T → C	1.00	Exon	M → V	Core	NO	
1P	X	8,628,978	A → G	1.00		IG	—	Core	—
1P	X	11,338,002	T → A	1.00	Exon	Synonymous	Core	NO	
1P	X	14,361,564	A → T	1.00		IG	—	Arm	—
1P	X	14,889,839	T → A	1.00	Exon	S → T	Arm	NO	
1P	X	15,174,282	G → A	1.00	Intron	—	Arm	YES	
1P	X	15,552,827	C → T	1.00		IG	—	Arm	—
1P	X	15,642,797	T → A	1.00		IG	—	Arm	—
1P	X	16,165,835	A → C	1.00		IG	—	Arm	—
1Q	I	158,975	T → A	1.00		IG	—	Tip	—
1Q	I	1,136,852	T → A	1.00	Intron	—	Arm	NO	
1Q	I	1,542,879	T → A	1.00		IG	—	Arm	—
1Q	I	1,575,280	A → G	1.00	Intron	—	Arm	YES	
1Q	I	1,897,985	A → T	1.00	Intron	—	Arm	NO	
1Q	I	3,668,179	C → A	1.00	Intron	—	Arm	NO	
1Q	I	4,856,402	G → A	1.00	Intron	—	Core	NO	
1Q	I	5,004,561	T → C	1.00	Exon	Synonymous	Core	NO	
1Q	I	5,912,033	A → T	1.00	Intron	—	Core	YES	
1Q	I	6,011,026	G → A	1.00	Exon	L → F	Core	YES	
1Q	I	7,367,846	T → A	1.00	Intron	—	Core	NO	

1Q	I	11,766,792	G → T	1.00	Intron	—	Arm	NO
1Q	II	1,343,871	T → A	1.00	Intron	—	Arm	NO
1Q	II	1,949,747	C → T	1.00	Exon	Synonymous	Arm	NO
1Q	II	2,352,080	A → G	1.00		IG	—	—
1Q	II	3,972,500	C → G	1.00	Intron	—	Arm	NO
1Q	II	6,184,654	C → A	1.00	Exon	Synonymous	Core	YES
1Q	II	6,801,992	C → T	1.00		IG	—	—
1Q	II	7,067,087	T → C	1.00	Exon	Synonymous	Core	NO
1Q	II	7,333,711	G → C	1.00		IG	—	—
1Q	II	11,505,925	C → A	1.00		IG	—	—
1Q	II	11,909,121	C → T	1.00	Exon	Synonymous	Core	NO
1Q	II	13,373,179	A → G	1.00	Intron	—	Arm	NO
1Q	III	410,201	T → A	1.00	Intron	—	Tip	YES
1Q	III	1,469,413	T → A	1.00	Intron	—	Arm	YES
1Q	III	1,538,931	C → A	1.00	Intron	—	Arm	YES
1Q	III	2,329,133	T → A	1.00	Intron	—	Arm	YES
1Q	III	3,080,639	A → G	1.00	Intron	—	Arm	YES
1Q	III	4,654,082	C → T	1.00		IG	—	—
1Q	III	4,821,044	G → A	1.00	Exon	S → L	Core	NO
1Q	III	8,564,155	T → A	1.00		IG	—	—
1Q	III	10,673,983	A → T	1.00	Exon	N → I	Arm	YES
1Q	III	12,534,862	T → A	1.00		IG	—	—
1Q	III	12,725,240	C → G	1.00	Intron	—	Arm	NO
1Q	IV	2,007,580	C → A	1.00	Intron	—	Arm	NO
1Q	IV	2,722,311	A → T	1.00	Intron	—	Arm	NO
1Q	IV	2,779,915	A → G	1.00	Exon	I → V	Arm	NO
1Q	IV	3,244,770	A → T	1.00	Intron	—	Arm	NO
1Q	IV	9,465,347	C → T	1.00	Intron	—	Core	NO
1Q	IV	11,106,909	A → G	1.00		IG	—	—
1Q	IV	11,645,034	A → C	1.00	Intron	—	Core	NO
1Q	IV	12,593,546	G → A	1.00	Exon	S → L	Core	NO

1Q	IV	14,861,234	A → T	1.00	Intron	—	Arm	NO
1Q	IV	17,092,383	T → A	1.00	Intron	—	Tip	YES
1Q	V	8,968	T → C	1.00	IG	—	Tip	—
1Q	V	1,410,114	A → G	1.00	Intron	—	Arm	NO
1Q	V	1,410,131	C → G	1.00	Intron	—	Arm	NO
1Q	V	2,216,513	A → T	1.00	Intron	—	Arm	NO
1Q	V	5,721,489	C → T	1.00	Exon	Synonymous	Arm	YES
1Q	V	5,798,788	G → T	1.00	IG	—	Arm	—
1Q	V	8,281,975	T → A	1.00	Intron	—	Core	NO
1Q	V	8,286,743	T → C	1.00	IG	—	Core	—
1Q	V	13,105,021	C → G	1.00	Intron	—	Core	NO
1Q	V	16,878,037	T → G	1.00	IG	—	Arm	—
1Q	X	78,902	C → T	1.00	Intron	—	Tip	NO
1Q	X	1,521,756	G → A	1.00	IG	—	Arm	—
1Q	X	3,620,085	C → A	1.00	IG	—	Arm	—
1Q	X	7,161,564	C → T	1.00	Intron	—	Core	NO
1Q	X	11,902,672	T → C	1.00	Exon	* → W	Core	NO
1Q	X	12,710,328	T → A	1.00	Intron	—	Arm	NO
1Q	X	13,370,123	A → T	1.00	IG	—	Arm	—
1Q	X	14,351,486	G → A	1.00	Exon	G → E	Arm	YES
1Q	X	17,173,266	A → T	1.00	IG	—	Tip	—
1R	I	1,464,982	A → T	1.00	Intron	—	Arm	YES
1R	I	1,635,421	T → C	1.00	Intron	—	Arm	NO
1R	I	4,117,598	T → A	1.00	Exon	I → N	Core	NO
1R	I	8,714,016	T → A	1.00	Exon	R → S	Core	YES
1R	I	8,919,263	G → T	1.00	IG	—	Core	—
1R	I	10,584,267	G → A	1.00	IG	—	Core	—
1R	I	11,688,046	T → A	1.00	IG	—	Arm	—
1R	I	11,915,407	A → T	1.00	Intron	—	Arm	YES
1R	II	1,842,875	A → T	1.00	Exon	I → N	Arm	NO
1R	II	4,168,659	T → A	1.00	IG	—	Arm	—

1R	II	5,568,812	A → T	1.00	IG	—	Core	—
1R	II	7,670,739	C → A	1.00	Exon	N → K	Core	YES
1R	II	7,720,629	G → C	1.00	IG	—	Core	—
1R	II	7,917,365	C → G	1.00	Intron	—	Core	NO
1R	II	9,156,293	T → A	1.00	IG	—	Core	—
1R	II	9,450,563	C → T	1.00	Exon	G → D	Core	NO
1R	II	10,562,576	G → A	1.00	Exon	Synonymous	Core	YES
1R	II	11,766,232	C → T	1.00	IG	—	Core	—
1R	II	12,074,524	G → A	1.00	Intron	—	Arm	YES
1R	II	12,152,735	G → A	1.00	Exon	G → R	Arm	NO
1R	II	12,162,087	A → C	1.00	Exon	T → P	Arm	YES
1R	II	13,009,518	A → T	1.00	Intron	—	Arm	NO
1R	II	14,451,918	A → T	1.00	IG	—	Arm	—
1R	II	14,475,998	A → T	1.00	Exon	F → I	Arm	NO
1R	III	93,467	A → T	1.00	Intron	—	Tip	YES
1R	III	1,471,387	A → T	1.00	Intron	—	Arm	YES
1R	III	1,479,758	A → T	1.00	Intron	—	Arm	YES
1R	III	1,855,068	T → G	1.00	IG	—	Arm	—
1R	III	2,724,531	T → A	1.00	Intron	—	Arm	YES
1R	III	4,113,658	G → T	1.00	IG	—	Core	—
1R	III	10,840,544	A → T	1.00	Intron	—	Arm	YES
1R	III	11,052,599	A → C	1.00	Intron	—	Arm	YES
1R	III	11,321,801	T → A	1.00	Intron	—	Arm	YES
1R	III	12,733,825	A → T	1.00	Intron	—	Arm	NO
1R	III	13,007,768	C → T	1.00	Intron	—	Arm	NO
1R	IV	193,450	T → A	1.00	Intron	—	Tip	NO
1R	IV	3,245,950	C → G	1.00	Intron	—	Arm	NO
1R	IV	3,249,271	C → A	1.00	Intron	—	Arm	NO
1R	IV	5,543,387	A → G	1.00	Exon	Synonymous	Core	YES
1R	IV	5,759,721	T → A	1.00	IG	—	Core	—
1R	IV	5,921,204	G → C	1.00	Intron	—	Core	NO

1R	IV	6,659,559	C → A	1.00	Intron	—	Core	NO
1R	IV	6,709,992	T → A	1.00	IG	—	Core	—
1R	IV	6,735,446	T → A	1.00	IG	—	Core	—
1R	IV	7,353,371	A → C	1.00	Intron	—	Core	NO
1R	IV	8,845,839	G → C	1.00	IG	—	Core	—
1R	IV	11,849,570	A → C	1.00	Exon	S → R	Core	NO
1R	IV	14,273,201	T → A	1.00	IG	—	Arm	—
1R	IV	15,010,608	A → G	1.00	Exon	S → P	Arm	YES
1R	IV	16,810,627	G → A	1.00	IG	—	Tip	—
1R	V	1,541,338	T → C	1.00	Intron	—	Arm	NO
1R	V	3,606,258	A → T	1.00	IG	—	Arm	—
1R	V	5,003,712	G → A	1.00	IG	—	Arm	—
1R	V	5,377,069	C → T	1.00	Intron	—	Arm	NO
1R	V	7,278,450	A → T	1.00	Exon	I → F	Core	NO
1R	V	10,326,986	T → C	1.00	Intron	—	Core	NO
1R	V	10,686,741	G → T	1.00	IG	—	Core	—
1R	V	11,324,866	T → C	1.00	Intron	—	Core	YES
1R	V	14,482,940	C → T	1.00	IG	—	Core	—
1R	V	14,700,122	C → T	1.00	Exon	S → L	Core	NO
1R	V	16,710,040	C → T	1.00	IG	—	Arm	—
1R	V	18,097,252	A → G	1.00	Intron	—	Arm	NO
1R	V	19,894,163	A → T	1.00	Intron	—	Arm	YES
1R	V	20,367,035	C → T	1.00	IG	—	Tip	—
1R	X	1,075,067	A → T	1.00	Intron	—	Arm	NO
1R	X	4,389,036	C → T	1.00	IG	—	Arm	—
1R	X	4,858,409	G → T	1.00	Intron	—	Arm	NO
1R	X	4,963,844	A → G	1.00	Exon	Synonymous	Arm	YES
1R	X	5,661,788	A → C	1.00	IG	—	Arm	—
1R	X	7,311,314	A → G	1.00	IG	—	Core	—
1R	X	7,658,921	C → G	1.00	Exon	R → S	Core	YES
1R	X	9,565,113	G → A	1.00	Intron	—	Core	NO

1R	X	12,478,390	T → C	1.00	IG	—	Core	—
1R	X	14,876,884	A → T	1.00	Intron	—	Arm	NO
1R	X	15,507,906	G → A	1.00	IG	—	Arm	—
1R	X	15,509,490	T → A	1.00	IG	—	Arm	—
1S	I	2,825,056	T → C	1.00	Exon	S → G	Arm	NO
1S	I	4,010,510	C → T	1.00	Intron	—	Core	YES
1S	I	5,442,630	A → T	1.00	Intron	—	Core	NO
1S	I	6,174,875	C → T	1.00	IG	—	Core	—
1S	I	8,412,748	T → G	1.00	IG	—	Core	—
1S	I	10,597,485	A → G	1.00	Exon	Q → R	Core	NO
1S	I	13,347,560	G → T	1.00	Exon	G → V	Arm	NO
1S	I	13,510,986	A → T	1.00	Intron	—	Arm	NO
1S	II	3,974,714	G → A	1.00	Exon	Synonymous	Arm	NO
1S	II	4,777,919	A → T	1.00	Intron	—	Arm	NO
1S	II	6,384,092	A → T	1.00	Exon	K → *	Core	YES
1S	II	7,118,997	C → A	1.00	Exon	T → K	Core	NO
1S	II	7,541,070	G → T	1.00	Intron	—	Core	YES
1S	II	9,082,605	A → T	1.00	IG	—	Core	—
1S	II	9,560,886	C → T	1.00	IG	—	Core	—
1S	II	13,281,760	A → G	1.00	Intron	—	Arm	NO
1S	III	529,220	G → T	1.00	IG	—	Arm	—
1S	III	977,314	A → T	1.00	Exon	* → K	Arm	NO
1S	III	1,679,149	G → A	1.00	IG	—	Arm	—
1S	III	3,911,206	T → A	1.00	Intron	—	Core	NO
1S	III	4,877,591	G → T	1.00	Exon	C → *	Core	YES
1S	III	5,431,844	C → A	1.00	Exon	C → F	Core	NO
1S	III	8,390,541	G → A	1.00	Intron	—	Core	NO
1S	IV	4,218,708	G → T	1.00	IG	—	Core	—
1S	IV	8,801,541	C → T	1.00	Intron	—	Core	NO
1S	IV	9,657,670	C → A	1.00	IG	—	Core	—
1S	IV	11,039,572	T → A	1.00	Intron	—	Core	YES

1S	IV	16,063,374	C → G	1.00	IG	—	Arm	—
1S	IV	17,085,785	G → A	1.00	Intron	—	Tip	YES
1S	V	781,939	T → A	1.00	IG	—	Arm	—
1S	V	2,663,436	T → C	1.00	Intron	—	Arm	NO
1S	V	3,106,116	T → G	1.00	IG	—	Arm	—
1S	V	5,921,027	T → C	1.00	IG	—	Core	—
1S	V	8,241,580	A → T	1.00	Intron	—	Core	NO
1S	V	9,224,313	C → T	1.00	Exon	Synonymous	Core	NO
1S	V	9,982,896	C → G	1.00	Exon	T → R	Core	NO
1S	V	10,882,942	C → G	1.00	Exon	Synonymous	Core	NO
1S	V	13,197,878	C → T	1.00	Exon	C → Y	Core	NO
1S	V	14,842,200	A → G	1.00	Exon	Synonymous	Core	YES
1S	V	18,376,132	A → T	1.00	Intron	—	Arm	NO
1S	X	898,703	G → A	1.00	IG	—	Arm	—
1S	X	3,981,749	G → A	1.00	IG	—	Arm	—
1S	X	6,470,889	T → A	1.00	Intron	—	Core	NO
1S	X	11,920,732	C → T	1.00	IG	—	Core	—
1S	X	12,753,158	C → T	1.00	Intron	—	Arm	NO
1S	X	12,890,332	C → G	1.00	IG	—	Arm	—
1S	X	13,891,581	T → A	1.00	Intron	—	Arm	NO
1S	X	14,384,147	A → T	1.00	IG	—	Arm	—
1S	X	15,294,804	A → G	1.00	Intron	—	Arm	NO
1S	X	16,054,055	G → A	1.00	Intron	—	Arm	NO
1T	I	1,203,288	G → C	1.00	Intron	—	Arm	NO
1T	I	8,754,522	T → A	1.00	Intron	—	Core	YES
1T	I	11,672,463	C → T	1.00	IG	—	Arm	—
1T	I	14,507,928	A → C	1.00	Intron	—	Arm	YES
1T	II	5,038,438	T → C	1.00	Exon	* → W	Core	NO
1T	II	7,568,968	C → A	1.00	IG	—	Core	—
1T	II	8,611,008	T → C	1.00	IG	—	Core	—
1T	II	9,040,620	A → G	1.00	Exon	L → P	Core	NO

1T	II	10,533,312	C → G	1.00	Intron	—	Core	NO
1T	II	11,476,743	A → T	1.00	IG	—	Core	—
1T	II	13,370,481	A → T	1.00	Intron	—	Arm	NO
1T	II	13,849,436	T → A	1.00	IG	—	Arm	—
1T	II	14,549,286	T → C	1.00	IG	—	Arm	—
1T	III	1,086,870	C → T	1.00	Intron	—	Arm	YES
1T	III	1,269,061	C → A	1.00	Intron	—	Arm	NO
1T	III	7,837,653	T → G	1.00	IG	—	Core	—
1T	III	7,862,292	T → C	1.00	Exon	V → A	Core	YES
1T	III	9,028,534	G → A	1.00	IG	—	Core	—
1T	III	10,833,343	A → C	1.00	IG	—	Arm	—
1T	IV	1,471,371	G → T	1.00	Intron	—	Arm	NO
1T	IV	1,944,893	C → G	1.00	Exon	S → W	Arm	NO
1T	IV	2,051,403	G → C	1.00	IG	—	Arm	—
1T	IV	2,507,203	C → T	1.00	Intron	—	Arm	NO
1T	IV	3,467,202	T → G	1.00	IG	—	Arm	—
1T	IV	3,550,795	C → A	1.00	IG	—	Arm	—
1T	IV	4,638,276	G → A	1.00	IG	—	Core	—
1T	IV	8,783,550	C → T	1.00	Exon	Synonymous	Core	NO
1T	IV	9,879,951	A → T	1.00	Intron	—	Core	NO
1T	IV	10,677,655	C → T	1.00	Intron	—	Core	NO
1T	IV	11,355,896	A → C	1.00	Intron	—	Core	NO
1T	IV	12,441,022	C → T	1.00	Exon	P → L	Core	NO
1T	IV	15,972,048	T → G	1.00	IG	—	Arm	—
1T	IV	16,139,898	G → A	1.00	IG	—	Arm	—
1T	V	173,626	G → C	1.00	Intron	—	Tip	YES
1T	V	300,403	T → A	1.00	Intron	—	Tip	YES
1T	V	1,607,969	G → T	1.00	IG	—	Arm	—
1T	V	9,080,005	T → C	1.00	IG	—	Core	—
1T	V	11,162,406	C → G	1.00	IG	—	Core	—
1T	V	11,606,792	A → T	1.00	IG	—	Core	—

$N = 10$	1T	V	11,891,763	C → T	1.00	IG	—	Core	—
	1T	V	13,156,506	G → C	1.00	Intron	—	Core	NO
	1T	V	15,268,367	T → C	1.00	IG	—	Core	—
	1T	X	2,401,268	T → A	1.00	Intron	—	Arm	NO
	1T	X	2,629,631	A → G	1.00	Exon	L → P	Arm	NO
	1T	X	4,000,028	C → T	1.00	IG	—	Arm	—
	1T	X	14,314,413	T → A	1.00	Intron	—	Arm	NO
	1T	X	15,056,207	G → C	1.00	Intron	—	Arm	NO
	10A	I	696,225	C → T	1.00	Intron	—	Arm	YES
	10A	I	3,032,449	T → A	1.00	Intron	—	Arm	YES
	10A	I	4,372,007	C → T	1.00	Intron	—	Core	YES
	10A	I	5,858,655	G → A	1.00	Intron	—	Core	NO
	10A	I	8,539,865	C → A	1.00	IG	—	Core	—
	10A	I	11,107,150	G → A	1.00	Intron	—	Arm	YES
	10A	I	11,117,827	C → T	1.00	Exon	Synonymous	Arm	YES
	10A	I	11,230,551	G → A	1.00	Intron		Arm	YES
	10A	I	11,230,619	C → G	1.00	Intron	—	Arm	YES
	10A	I	13,649,135	T → A	1.00	IG	—	Arm	—
	10A	I	14,682,765	T → C	1.00	IG	—	Arm	—
	10A	II	612,250	T → A	1.00	IG	—	Arm	—
	10A	II	1,580,237	T → A	1.00	IG	—	Arm	—
	10A	II	3,459,365	T → C	1.00	IG	—	Arm	—
	10A	II	5,678,689	A → T	1.00	Intron	—	Core	NO
	10A	II	6,128,109	G → A	1.00	IG	—	Core	—
	10A	II	7,682,450	A → T	1.00	Intron	—	Core	YES
	10A	II	12,686,555	A → T	1.00	Exon	N → I	Arm	YES
	10A	II	14,392,497	C → T	1.00	Exon	L → F	Arm	YES
	10A	II	14,525,351	G → T	1.00	Exon	V → L	Arm	YES
	10A	III	896,011	A → C	1.00	Exon	K → Q	Arm	YES
	10A	III	1,350,192	C → T	1.00	Exon	A → T	Arm	NO
	10A	III	1,904,292	G → C	1.00	Intron	—	Arm	NO

10A	III	2,135,650	C → G	1.00	Intron	—	Arm	YES
10A	III	2,701,802	A → T	1.00	Intron	—	Arm	NO
10A	III	2,836,325	T → A	1.00	IG	—	Arm	—
10A	III	5,750,566	G → T	1.00	Intron	—	Core	NO
10A	III	6,040,821	A → G	1.00	Intron	—	Core	NO
10A	III	6,668,411	A → C	1.00	IG	—	Core	—
10A	III	7,121,445	T → A	1.00	Intron	—	Core	NO
10A	III	9,398,069	A → T	1.00	Intron	—	Core	YES
10A	III	10,133,288	C → T	1.00	IG	—	Core	—
10A	III	10,773,875	T → A	1.00	Intron	—	Arm	YES
10A	III	11,580,504	T → A	1.00	Exon	K → *	Arm	NO
10A	III	12,032,243	A → T	1.00	Intron	—	Arm	YES
10A	III	12,220,675	G → A	1.00	Exon	W → *	Arm	YES
10A	III	12,509,005	T → A	1.00	Intron	—	Arm	NO
10A	III	13,408,214	C → T	1.00	Exon	Synonymous	Tip	NO
10A	IV	467,954	T → C	1.00	Intron	—	Tip	NO
10A	IV	1,082,202	T → C	0.75	Intron	—	Arm	NO
10A	IV	3,980,279	T → C	1.00	Exon	M → T	Core	NO
10A	IV	5,437,191	A → G	1.00	IG	—	Core	—
10A	IV	5,621,430	T → A	1.00	IG	—	Core	—
10A	IV	5,684,001	C → T	1.00	Exon	P → S	Core	NO
10A	IV	6,250,048	C → T	1.00	Intron	—	Core	NO
10A	IV	6,814,238	C → T	1.00	Exon	Synonymous	Core	NO
10A	IV	7,136,110	T → A	1.00	Intron	—	Core	YES
10A	IV	8,623,107	T → A	1.00	Intron	—	Core	NO
10A	IV	9,049,501	A → C	1.00	IG	—	Core	—
10A	IV	12,114,079	T → A	1.00	IG	—	Core	—
10A	IV	12,847,458	G → T	1.00	Exon	* → L	Core	NO
10A	IV	13,730,360	A → T	1.00	Exon	T → S	Arm	NO
10A	IV	13,742,950	C → T	1.00	IG	—	Arm	—
10A	IV	15,291,777	A → G	1.00	IG	—	Arm	—

10A	IV	15,459,840	A → T	1.00	Intron	—	Arm	YES
10A	IV	17,094,447	A → T	1.00	Intron	—	Tip	NO
10A	V	1,669,644	A → T	1.00	Intron	—	Arm	NO
10A	V	2,232,161	C → G	1.00	Exon	R → G	Arm	NO
10A	V	8,144,518	G → A	1.00	Exon	R → H	Core	NO
10A	V	9,125,914	T → A	1.00	Exon	F → I	Core	NO
10A	V	9,205,661	G → T	1.00	Exon	P → Q	Core	NO
10A	V	10,915,252	A → G	1.00	IG	—	Core	—
10A	V	11,935,503	G → C	1.00	Intron	—	Core	NO
10A	V	12,102,261	A → T	1.00	Intron	—	Core	NO
10A	V	13,032,202	C → A	1.00	Intron	—	Core	NO
10A	V	13,182,980	A → C	1.00	Intron	—	Core	NO
10A	V	16,464,845	G → A	1.00	Exon	Synonymous	Core	NO
10A	V	17,226,093	C → G	1.00	Exon	Synonymous	Arm	NO
10A	V	18,393,582	T → A	1.00	Exon	Q → L	Arm	NO
10A	V	18,410,506	A → T	1.00	IG	—	Arm	—
10A	V	20,387,745	G → T	1.00	Exon	E → *	Tip	NO
10A	X	83,362	C → G	1.00	IG	—	Tip	—
10A	X	83,377	G → A	1.00	IG	—	Tip	—
10A	X	3,986,874	A → T	1.00	IG	—	Arm	—
10A	X	4,207,638	C → T	1.00	IG	—	Arm	—
10A	X	6,351,014	A → G	1.00	Intron	—	Core	NO
10A	X	6,515,822	T → C	1.00	IG	—	Core	—
10A	X	7,940,721	G → T	1.00	Intron	—	Core	NO
10A	X	10,396,541	A → G	1.00	IG	—	Core	—
10A	X	11,676,739	A → T	1.00	Intron	—	Core	NO
10A	X	11,794,498	T → C	1.00	IG	—	Core	—
10A	X	11,794,527	C → T	1.00	IG	—	Core	—
10B	I	312,021	T → A	1.00	Exon	I → F	Tip	YES
10B	I	1,186,317	G → C	1.00	Intron	—	Arm	NO
10B	I	1,308,851	G → T	1.00	Intron	—	Arm	NO

10B	I	2,378,176	T → C	1.00	Intron	—	Arm	NO
10B	I	2,378,308	C → T	1.00	Intron	—	Arm	NO
10B	I	3,189,177	T → A	1.00	Intron	—	Arm	YES
10B	I	4,140,559	C → T	1.00	Intron	—	Core	YES
10B	I	4,648,750	A → T	0.25	Intron	—	Core	YES
10B	I	6,117,044	C → G	1.00	IG	—	Core	—
10B	I	6,315,717	A → G	1.00	Exon	M → V	Core	YES
10B	I	6,499,423	A → G	0.25	UTR	—	Core	YES
10B	I	9,942,236	G → T	1.00	IG	—	Core	—
10B	I	10,119,324	A → T	1.00	Exon	Synonymous	Core	NO
10B	I	10,884,238	C → T	1.00	Exon	R → Q	Core	YES
10B	I	11,086,871	C → G	1.00	Exon	E → Q	Arm	YES
10B	I	11,521,138	C → A	1.00	Intron	—	Arm	YES
10B	I	12,742,046	C → A	1.00	Exon	Synonymous	Arm	NO
10B	I	12,949,065	G → A	0.50	Exon	V → I	Arm	NO
10B	II	124,309	C → T	1.00	Exon	A → T	Tip	NO
10B	II	3,310,965	T → A	0.25	IG	—	Arm	—
10B	II	4,731,950	G → A	1.00	Intron	—	Arm	NO
10B	II	6,143,107	G → A	1.00	Intron	—	Core	NO
10B	II	8,194,577	A → T	1.00	IG	—	Core	—
10B	II	8,331,841	G → T	1.00	Exon	C → F	Core	NO
10B	II	8,369,100	T → G	1.00	Exon	K → N	Core	NO
10B	II	8,748,049	T → G	1.00	IG	—	Core	—
10B	II	9,657,837	C → T	1.00	IG	—	Core	—
10B	II	10,268,763	A → T	1.00	Intron	—	Core	NO
10B	II	10,949,125	C → T	1.00	Exon	Q → *	Core	NO
10B	II	10,994,354	C → T	1.00	Exon	Synonymous	Core	NO
10B	II	12,588,126	A → C	1.00	Intron	—	Arm	YES
10B	II	13,210,329	T → A	1.00	Exon	C → *	Arm	YES
10B	II	13,786,122	C → T	1.00	IG	—	Arm	—
10B	II	14,048,847	G → T	1.00	IG	—	Arm	—

10B	II	14,895,040	C → T	1.00	IG	—	Tip	—
10B	III	90,806	T → A	1.00	Intron	—	Tip	YES
10B	III	2,374,287	C → T	1.00	IG	—	Arm	—
10B	III	2,530,985	T → A	0.75	Intron	—	Arm	YES
10B	III	2,568,154	A → T	1.00	Intron	—	Arm	YES
10B	III	2,609,493	C → G	0.25	Exon	Synonymous	Arm	YES
10B	III	6,424,456	C → G	1.00	Exon	M → I	Core	NO
10B	III	8,919,877	T → A	0.75	IG	—	Core	—
10B	III	9,105,161	T → A	1.00	Intron	—	Core	NO
10B	III	10,074,825	C → A	0.25	Exon	C → *	Core	NO
10B	III	10,089,028	G → A	1.00	Intron	—	Core	YES
10B	III	11,014,012	A → T	1.00	Intron	—	Arm	NO
10B	III	11,444,292	T → A	1.00	IG	—	Arm	—
10B	III	11,737,789	T → A	1.00	IG	—	Arm	—
10B	III	12,986,394	A → G	1.00	Exon	* → Q	Arm	NO
10B	III	13,400,293	G → T	1.00	Intron	—	Tip	NO
10B	III	13,681,917	A → T	0.25	Intron	—	Tip	NO
10B	IV	951,380	A → T	1.00	IG	—	Arm	—
10B	IV	2,155,597	T → G	1.00	Intron	—	Arm	NO
10B	IV	5,224,924	G → A	1.00	Exon	S → F	Core	NO
10B	IV	5,850,636	C → G	1.00	Exon	L → V	Core	NO
10B	IV	9,703,854	A → G	1.00	Intron	—	Core	YES
10B	IV	11,281,846	C → T	1.00	Exon	S → F	Core	NO
10B	IV	12,614,320	A → T	1.00	Intron	—	Core	NO
10B	IV	12,813,473	C → A	1.00	Exon	Q → K	Core	YES
10B	IV	13,088,490	T → A	0.25	Intron	—	Arm	NO
10B	IV	13,817,830	T → G	1.00	Intron	—	Arm	NO
10B	IV	15,095,905	G → T	1.00	Intron	—	Arm	NO
10B	IV	15,444,709	G → A	1.00	IG	—	Arm	—
10B	IV	15,685,274	C → T	1.00	IG	—	Arm	—
10B	IV	15,843,949	C → T	0.75	IG	—	Arm	—

10B	IV	17,491,784	A → C	1.00		IG	—	Tip	—
10B	V	2,929,936	G → A	1.00		IG	—	Arm	—
10B	V	4,033,851	A → C	1.00		IG	—	Arm	—
10B	V	5,068,934	T → A	1.00		Intron	—	Arm	NO
10B	V	5,235,203	T → G	0.75		Intron	—	Arm	NO
10B	V	7,445,547	C → T	1.00		Exon	Synonymous	Core	NO
10B	V	8,578,913	T → C	1.00		Exon	Synonymous	Core	NO
10B	V	9,898,721	A → T	1.00		IG	—	Core	—
10B	V	13,310,394	C → T	1.00		Exon	E → K	Core	YES
10B	V	15,592,149	G → A	1.00		IG	—	Core	—
10B	V	16,073,342	T → A	1.00		Exon	* → C	Core	NO
10B	V	16,125,833	A → T	0.25		Exon	F → L	Core	NO
10B	V	17,564,400	A → T	1.00		Intron	—	Arm	NO
10B	V	19,342,947	T → C	1.00		Intron	—	Arm	NO
10B	V	19,724,436	T → A	1.00		IG	—	Arm	—
10B	V	20,293,770	C → T	1.00		Exon	E → K	Arm	NO
10B	X	442,090	A → T	1.00		IG	—	Tip	—
10B	X	2,375,694	T → A	1.00		IG	—	Arm	—
10B	X	2,404,608	C → T	1.00		Exon	Synonymous	Arm	NO
10B	X	4,359,918	A → T	1.00		IG	—	Arm	—
10B	X	5,197,260	G → T	1.00		Intron	—	Arm	NO
10B	X	6,694,415	C → G	1.00		Intron	—	Core	NO
10B	X	7,033,810	G → A	1.00		Intron	—	Core	NO
10B	X	7,544,918	C → A	0.25		IG	—	Core	—
10B	X	10,068,265	A → T	1.00		Intron	—	Core	NO
10B	X	11,058,269	C → G	1.00		Exon	P → R	Core	NO
10B	X	13,009,594	A → G	1.00		Intron	—	Arm	NO
10B	X	13,992,987	T → A	1.00		Intron	—	Arm	YES
10B	X	14,598,386	C → T	1.00		Intron	—	Arm	NO
10B	X	15,607,538	A → T	1.00		IG	—	Arm	—
10C	I	623,098	C → G	1.00		Intron	—	Arm	YES

10C	I	984,295	A → T	1.00	IG	—	Arm	—
10C	I	2,004,243	A → T	1.00	Intron	—	Arm	NO
10C	I	5,476,150	C → A	1.00	Intron	—	Core	NO
10C	I	6,690,588	A → T	1.00	Intron	—	Core	NO
10C	I	7,207,079	G → T	1.00	Exon	S → *	Core	NO
10C	I	11,029,210	T → G	1.00	IG	—	Core	—
10C	II	986,846	T → A	0.25	Intron	—	Arm	NO
10C	II	1,402,085	C → T	1.00	Exon	Q → *	Arm	NO
10C	II	2,813,510	T → A	1.00	Intron	—	Arm	NO
10C	II	4,475,994	A → G	1.00	IG	—	Arm	—
10C	II	4,720,046	C → G	1.00	Exon	M → I	Arm	NO
10C	II	5,024,483	G → C	1.00	Intron	—	Core	YES
10C	II	5,458,739	C → A	0.25	IG	—	Core	—
10C	II	7,973,163	C → T	1.00	IG	—	Core	—
10C	II	9,061,054	C → T	0.25	Exon	G → E	Core	YES
10C	II	9,472,076	G → T	1.00	IG	—	Core	—
10C	II	11,576,205	G → A	1.00	Exon	H → Y	Core	NO
10C	II	13,332,031	C → A	1.00	IG	—	Arm	—
10C	II	13,357,267	G → T	1.00	IG	—	Arm	—
10C	II	13,649,549	T → A	1.00	Exon	Y → N	Arm	NO
10C	II	15,033,706	A → T	1.00	Intron	—	Tip	NO
10C	III	2,245,941	T → A	1.00	IG	—	Arm	—
10C	III	2,297,036	A → T	1.00	Intron	—	Arm	YES
10C	III	2,408,184	C → G	1.00	Intron	—	Arm	YES
10C	III	2,832,023	C → T	1.00	Intron	—	Arm	YES
10C	III	2,868,136	G → A	1.00	IG	—	Arm	—
10C	III	3,896,275	T → C	1.00	Intron	—	Core	NO
10C	III	5,186,489	A → T	1.00	Intron	—	Core	YES
10C	III	6,832,546	A → T	0.25	Intron	—	Core	NO
10C	III	8,250,273	C → T	1.00	IG	—	Core	—
10C	III	11,828,396	C → A	1.00	Intron	—	Arm	YES

10C	III	11,870,085	G → A	1.00	IG	—	Arm	—
10C	III	11,964,741	A → T	0.75	Intron	—	Arm	NO
10C	III	11,974,923	T → A	1.00	Intron	—	Arm	NO
10C	III	12,886,476	A → G	1.00	Intron	—	Arm	YES
10C	III	13,401,489	C → A	1.00	Exon	L → F	Tip	NO
10C	IV	1,514,374	C → T	1.00	Exon	Synonymous	Arm	NO
10C	IV	3,454,433	G → T	1.00	Exon	E → *	Arm	NO
10C	IV	4,116,511	A → C	1.00	IG	—	Core	—
10C	IV	7,303,727	T → A	1.00	IG	—	Core	—
10C	IV	7,730,646	A → T	1.00	Exon	K → *	Core	YES
10C	IV	10,923,213	A → G	1.00	Exon	T → A	Core	NO
10C	IV	12,658,020	A → T	1.00	Intron	—	Core	NO
10C	IV	15,727,142	G → A	1.00	IG	—	Arm	—
10C	IV	17,018,790	G → A	1.00	IG	—	Tip	—
10C	IV	17,140,118	T → C	1.00	IG	—	Tip	—
10C	IV	17,221,863	G → T	1.00	IG	—	Tip	—
10C	V	5,409	T → C	1.00	IG	—	Tip	—
10C	V	120,240	G → A	1.00	Intron	—	Tip	YES
10C	V	1,554,214	A → T	1.00	IG	—	Arm	—
10C	V	2,645,883	A → T	0.75	Intron	—	Arm	NO
10C	V	2,976,187	A → G	1.00	IG	—	Arm	—
10C	V	3,183,124	T → A	1.00	IG	—	Arm	—
10C	V	6,722,654	T → C	1.00	Intron	—	Core	NO
10C	V	9,532,281	G → A	0.25	Exon	G → D	Core	NO
10C	V	9,774,780	C → T	1.00	Intron	—	Core	NO
10C	V	10,929,462	A → C	1.00	IG	—	Core	—
10C	V	12,884,958	C → T	1.00	Exon	V → I	Core	NO
10C	V	13,413,808	A → T	1.00	IG	—	Core	—
10C	V	13,437,755	A → G	1.00	IG	—	Core	—
10C	V	17,252,309	T → G	1.00	Exon	—	Arm	NO
10C	V	18,375,792	T → A	1.00	Intron	—	Arm	NO

10C	V	19,924,086	T → C	1.00	IG	—	Arm	—
10C	X	1,980,173	A → G	1.00	Intron	—	Arm	NO
10C	X	3,187,917	T → A	1.00	IG	—	Arm	—
10C	X	3,651,451	T → G	1.00	IG	—	Arm	—
10C	X	4,384,928	G → T	1.00	IG	—	Arm	—
10C	X	4,720,603	G → T	1.00	Exon	A → E	Arm	NO
10C	X	5,342,744	A → C	1.00	Exon	Synonymous	Arm	NO
10C	X	9,941,070	G → T	1.00	IG	—	Core	—
10D	I	2,078,932	A → T	1.00	IG	—	Arm	—
10D	I	2,361,998	T → A	1.00	Intron	—	Arm	NO
10D	I	9,536,100	T → A	1.00	Intron	—	Core	NO
10D	I	9,806,223	G → A	1.00	IG	—	Core	—
10D	I	10,118,613	C → T	1.00	Intron	—	Core	YES
10D	I	12,586,520	A → T	0.25	IG	—	Arm	—
10D	I	13,551,622	A → G	1.00	Intron	—	Arm	YES
10D	I	13,942,364	A → G	1.00	IG	—	Arm	—
10D	I	14,127,679	G → A	1.00	IG	—	Arm	—
10D	II	3,394,896	A → G	1.00	Exon	F → L	Arm	NO
10D	II	4,088,718	A → G	1.00	IG	—	Arm	—
10D	II	8,341,495	C → T	1.00	IG	—	Core	—
10D	II	8,407,393	T → C	1.00	IG	—	Core	—
10D	II	8,680,759	G → T	1.00	Exon	Synonymous	Core	NO
10D	II	9,450,837	T → A	1.00	Intron	—	Core	NO
10D	II	10,789,987	T → A	1.00	Exon	K → I	Core	YES
10D	II	11,122,816	T → A	1.00	IG	—	Core	—
10D	II	12,506,769	C → A	1.00	IG	—	Arm	—
10D	II	13,537,414	T → A	1.00	Intron	—	Arm	NO
10D	II	15,155,098	C → A	1.00	IG	—	Tip	—
10D	III	26,696	G → C	1.00	IG	—	Tip	—
10D	III	212,009	C → T	1.00	IG	—	Tip	—
10D	III	692,293	G → A	1.00	Intron	—	Arm	YES

10D	III	1,139,902	A → G	1.00	Intron	—	Arm	NO
10D	III	1,426,351	A → T	1.00	Intron	—	Arm	YES
10D	III	1,505,714	A → G	1.00	Intron	—	Arm	NO
10D	III	1,756,670	A → T	1.00	IG	—	Arm	—
10D	III	4,821,694	T → C	1.00	Exon	* → W	Core	NO
10D	III	4,828,398	G → A	1.00	Exon	E → K	Core	NO
10D	III	6,120,754	A → C	1.00	Intron	—	Core	NO
10D	III	6,468,333	C → A	1.00	Intron	—	Core	YES
10D	III	9,529,512	T → G	1.00	Intron	—	Core	NO
10D	III	10,498,067	T → A	1.00	Intron	—	Arm	NO
10D	III	10,742,434	T → G	1.00	Exon	Q → P	Arm	YES
10D	III	12,253,300	T → A	1.00	Intron	—	Arm	YES
10D	III	12,313,535	G → A	1.00	Intron	—	Arm	NO
10D	III	12,893,655	G → A	1.00	IG	—	Arm	—
10D	III	13,273,162	T → A	1.00	IG	—	Tip	—
10D	IV	86,549	A → G	1.00	IG	—	Tip	—
10D	IV	1,186,643	C → G	1.00	IG	—	Arm	—
10D	IV	1,591,741	A → T	1.00	Intron	—	Arm	YES
10D	IV	2,746,218	G → T	1.00	Exon	E → *	Arm	NO
10D	IV	4,070,235	A → T	1.00	IG	—	Core	—
10D	IV	5,472,536	G → A	1.00	Exon	D → N	Core	YES
10D	IV	6,317,269	C → T	1.00	Exon	Synonymous	Core	NO
10D	IV	6,769,474	C → T	1.00	IG	—	Core	—
10D	IV	7,246,025	G → C	0.25	Intron	—	Core	NO
10D	IV	10,544,063	C → G	1.00	Exon	C → S	Core	NO
10D	IV	10,819,013	G → T	1.00	Intron	—	Core	YES
10D	IV	11,364,558	T → C	1.00	IG	—	Core	—
10D	IV	11,809,772	T → C	1.00	IG	—	Core	—
10D	V	349,076	T → A	1.00	IG	—	Tip	—
10D	V	2,140,570	T → A	1.00	IG	—	Arm	—
10D	V	5,682,698	T → G	1.00	IG	—	Arm	—

10D	V	6,523,038	C → A	1.00	IG	—	Core	—
10D	V	8,195,175	T → C	1.00	Intron	—	Core	NO
10D	V	11,497,262	T → C	1.00	IG	—	Core	—
10D	V	18,171,295	A → G	1.00	Intron	—	Arm	NO
10D	V	20,077,340	G → T	1.00	Intron	—	Arm	YES
10D	V	20,208,090	G → T	1.00	IG	—	Arm	—
10D	X	2,903,523	G → A	1.00	IG	—	Arm	—
10D	X	3,359,604	T → A	1.00	Intron	—	Arm	NO
10D	X	8,828,979	C → T	1.00	IG	—	Core	—
10D	X	11,179,177	T → G	1.00	Intron	—	Core	NO
10E	I	1,248,424	T → C	1.00	Intron	—	Arm	YES
10E	I	3,804,783	C → T	0.25	Exon	C → Y	Arm	YES
10E	I	4,140,231	A → T	0.75	Intron	—	Core	YES
10E	I	5,675,889	C → T	1.00	Intron	—	Core	YES
10E	I	10,343,534	A → T	1.00	Intron	—	Core	YES
10E	I	14,468,170	G → T	1.00	Exon	Q → K	Arm	NO
10E	II	459,722	T → G	1.00	Intron	—	Arm	YES
10E	II	840,517	G → C	1.00	IG	—	Arm	—
10E	II	1,021,739	C → A	1.00	Exon	Synonymous	Arm	NO
10E	II	3,210,427	T → A	1.00	Exon	* → K	Arm	NO
10E	II	4,270,828	G → T	1.00	IG	—	Arm	—
10E	II	4,734,400	A → C	1.00	IG	—	Arm	—
10E	II	5,115,165	C → A	1.00	Exon	Synonymous	Core	NO
10E	II	8,667,318	A → T	0.25	Intron	—	Core	YES
10E	II	9,585,490	G → A	1.00	Exon	R → C	Core	YES
10E	II	11,847,146	A → T	1.00	Exon	V → E	Core	NO
10E	II	12,219,759	A → T	1.00	Intron	—	Arm	YES
10E	II	12,484,251	A → T	1.00	Exon	L → F	Arm	NO
10E	II	13,156,785	A → T	1.00	Intron	—	Arm	YES
10E	II	13,794,433	T → A	1.00	Intron	—	Arm	NO
10E	II	14,040,290	C → A	0.25	IG	—	Arm	—

10E	III	852,695	T → A	1.00	IG	—	Arm	—
10E	III	1,280,677	C → T	1.00	IG	—	Arm	—
10E	III	1,632,871	T → A	1.00	Intron	—	Arm	NO
10E	III	2,035,931	C → T	1.00	Intron	—	Arm	NO
10E	III	6,182,364	T → A	1.00	Exon	K → I	Core	NO
10E	III	7,152,910	T → G	1.00	Intron	—	Core	YES
10E	III	11,628,240	A → T	1.00	IG	—	Arm	—
10E	III	12,571,119	G → A	1.00	Intron	—	Arm	NO
10E	III	12,603,522	T → C	1.00	Intron	—	Arm	NO
10E	IV	627,511	T → A	1.00	IG	—	Tip	—
10E	IV	2,963,344	T → A	1.00	Intron	—	Arm	NO
10E	IV	3,837,206	C → A	1.00	IG	—	Arm	—
10E	IV	4,208,067	G → T	1.00	Intron	—	Core	YES
10E	IV	5,021,462	G → A	1.00	Exon	Synonymous	Core	NO
10E	IV	5,273,420	A → G	1.00	Exon	E → G	Core	NO
10E	IV	5,525,063	C → A	1.00	Intron	—	Core	YES
10E	IV	5,839,970	A → G	1.00	Exon	Synonymous	Core	NO
10E	IV	6,524,206	A → T	1.00	Intron	—	Core	YES
10E	IV	6,956,347	C → T	1.00	IG	—	Core	—
10E	IV	8,150,165	G → T	1.00	Exon	E → *	Core	NO
10E	IV	8,398,823	T → A	0.25	IG	—	Core	—
10E	IV	11,001,430	T → A	1.00	IG	—	Core	—
10E	IV	13,192,024	G → A	1.00	Intron	—	Arm	NO
10E	IV	13,706,055	G → A	1.00	IG	—	Arm	—
10E	V	17,358	A → G	1.00	IG	—	Tip	—
10E	V	758,886	G → A	1.00	IG	—	Arm	—
10E	V	759,074	T → G	1.00	IG	—	Arm	—
10E	V	924,548	G → T	1.00	Exon	L → F	Arm	NO
10E	V	1,695,840	C → T	1.00	IG	—	Arm	—
10E	V	2,194,113	T → A	1.00	Intron	—	Arm	NO
10E	V	2,312,722	T → C	1.00	Exon	Synonymous	Arm	NO

10E	V	3,566,993	A → T	1.00		IG	—	Arm	—
10E	V	6,497,570	G → A	1.00	Exon	Synonymous	Core	NO	
10E	V	8,134,646	G → C	1.00	Intron	—	Core	NO	
10E	V	8,311,925	T → A	1.00	Exon	* → R	Core	NO	
10E	V	10,047,712	G → A	1.00	Exon	Synonymous	Core	NO	
10E	V	11,267,528	T → G	1.00	Exon	Synonymous	Core	NO	
10E	V	11,870,991	G → T	1.00	IG	—	Core	—	
10E	V	13,352,521	G → A	1.00	Intron	—	Core	NO	
10E	V	14,061,048	G → C	1.00	Intron	—	Core	NO	
10E	V	16,543,716	C → T	1.00	Exon	H → Y	Core	YES	
10E	V	18,963,450	T → G	1.00	Intron	—	Arm	YES	
10E	V	19,286,361	T → C	1.00	IG	—	Arm	—	
10E	V	20,701,525	A → T	1.00	Intron	—	Tip	NO	
10E	X	442,090	A → T	1.00	IG	—	Tip	—	
10E	X	3,535,114	G → A	1.00	IG	—	Arm	—	
10E	X	3,929,266	C → T	1.00	Exon	Synonymous	Arm	NO	
10E	X	12,042,419	T → A	1.00	IG	—	Core	—	
10E	X	12,367,716	A → T	1.00	IG	—	Core	—	
10E	X	14,394,935	C → T	1.00	IG	—	Arm	—	
10E	X	16,872,983	G → A	1.00	Exon	D → N	Tip	YES	
10F	I	1,042,408	A → T	1.00	Intron	—	Arm	NO	
10F	I	1,618,339	C → T	1.00	Intron	—	Arm	YES	
10F	I	3,483,308	T → A	1.00	Intron	—	Arm	YES	
10F	I	4,181,170	C → T	1.00	Exon	Q → *	Core	NO	
10F	I	6,163,764	A → T	1.00	IG	—	Core	—	
10F	I	6,249,089	C → G	1.00	Intron	—	Core	NO	
10F	I	6,604,868	T → A	1.00	Intron	—	Core	NO	
10F	I	9,398,710	G → T	1.00	Intron	—	Core	YES	
10F	I	11,016,279	T → A	1.00	Intron	—	Core	NO	
10F	I	11,548,610	C → G	1.00	Intron	—	Arm	YES	
10F	I	11,681,505	C → T	1.00	Intron	—	Arm	NO	

10F	I	11,954,019	G → A	1.00	Intron	—	Arm	YES
10F	I	12,768,432	G → A	1.00	IG	—	Arm	—
10F	I	14,275,592	T → A	1.00	IG	—	Arm	—
10F	II	2,139,476	T → A	1.00	IG	—	Arm	—
10F	II	2,809,148	G → C	1.00	Intron	—	Arm	NO
10F	II	4,056,643	G → T	1.00	Exon	A → S	Arm	NO
10F	II	7,865,895	C → A	1.00	Exon	Synonymous	Core	NO
10F	II	7,988,992	C → G	1.00	Intron	—	Core	NO
10F	II	9,249,638	A → C	1.00	Intron	—	Core	NO
10F	II	10,263,674	A → T	1.00	Intron	—	Core	NO
10F	II	11,385,484	G → A	1.00	Intron	—	Core	NO
10F	II	13,003,983	A → T	1.00	IG	—	Arm	—
10F	II	14,609,387	A → T	1.00	Exon	N → I	Tip	NO
10F	II	14,776,932	A → T	1.00	Intron	—	Tip	NO
10F	III	284,732	G → T	1.00	Intron	—	Tip	YES
10F	III	1,128,030	C → T	1.00	Intron	—	Arm	NO
10F	III	1,632,871	T → A	1.00	Intron	—	Arm	NO
10F	III	1,652,242	T → A	1.00	Intron	—	Arm	NO
10F	III	1,943,592	G → A	1.00	Exon	Synonymous	Arm	NO
10F	III	2,300,187	T → A	0.25	Exon	I → F	Arm	YES
10F	III	4,710,138	C → T	1.00	Exon	P → L	Core	NO
10F	III	4,859,769	A → T	1.00	Intron	—	Core	YES
10F	III	5,908,709	A → T	1.00	Exon	S → C	Core	YES
10F	III	5,988,423	C → T	1.00	IG	—	Core	—
10F	III	9,031,710	T → C	1.00	IG	—	Core	—
10F	IV	1,626,010	T → C	1.00	Intron	—	Arm	NO
10F	IV	1,988,314	T → G	1.00	Intron	—	Arm	YES
10F	IV	2,519,662	G → A	1.00	Intron	—	Arm	NO
10F	IV	8,582,063	G → A	1.00	IG	—	Core	—
10F	IV	8,959,342	G → A	1.00	Intron	—	Core	NO
10F	IV	10,511,248	A → T	1.00	IG	—	Core	—

10F	IV	13,316,439	G → A	1.00	Intron	—	Arm	YES
10F	IV	14,635,029	A → C	1.00	IG	—	Arm	—
10F	IV	17,094,447	A → T	1.00	Intron	—	Tip	NO
10F	IV	17,324,498	G → A	1.00	Exon	S → N	Tip	NO
10F	V	4,649,176	C → T	1.00	Intron	—	Arm	NO
10F	V	4,750,242	T → C	1.00	IG	—	Arm	—
10F	V	10,527,741	A → T	1.00	Intron	—	Core	NO
10F	V	10,820,013	G → A	1.00	IG	—	Core	—
10F	V	10,823,320	G → A	1.00	IG	—	Core	—
10F	V	10,871,956	A → T	1.00	IG	—	Core	—
10F	V	14,119,415	A → T	1.00	Intron	—	Core	NO
10F	V	14,213,119	G → A	1.00	IG	—	Core	—
10F	V	16,427,093	C → T	1.00	Exon	D → N	Core	NO
10F	V	17,451,026	C → G	1.00	IG	—	Arm	—
10F	V	17,586,450	C → A	1.00	IG	—	Arm	—
10F	X	1,030,405	A → T	1.00	Intron	—	Arm	YES
10F	X	2,784,444	A → C	1.00	Intron	—	Arm	YES
10F	X	2,819,466	G → T	1.00	IG	—	Arm	—
10F	X	4,307,317	G → A	1.00	Intron	—	Arm	NO
10F	X	6,715,028	G → T	1.00	Intron	—	Core	NO
10F	X	8,803,533	G → A	1.00	Exon	Synonymous	Core	YES
10F	X	9,762,393	A → G	1.00	Exon	I → T	Core	NO
10F	X	13,059,766	A → T	1.00	IG	—	Arm	—
10F	X	16,467,722	A → G	1.00	Intron	—	Tip	NO
10G	I	155,517	A → T	1.00	IG	—	Tip	—
10G	I	886,004	G → T	1.00	Intron	—	Arm	NO
10G	I	1,492,066	T → A	1.00	Intron	—	Arm	NO
10G	I	1,621,807	T → A	0.75	Intron	—	Arm	YES
10G	I	3,374,401	T → A	1.00	IG	—	Arm	—
10G	I	3,522,520	C → T	1.00	Exon	Synonymous	Arm	YES
10G	I	4,120,455	G → A	1.00	IG	—	Core	—

10G	I	4,156,455	G → A	1.00	Intron	—	Core	NO
10G	I	4,300,281	T → A	1.00	Intron	—	Core	YES
10G	I	5,281,242	T → A	1.00	Intron	—	Core	YES
10G	I	5,821,833	A → C	1.00	IG	—	Core	—
10G	I	6,932,970	G → A	1.00	Intron	—	Core	YES
10G	I	6,955,046	C → T	1.00	Exon	Synonymous	Core	NO
10G	I	9,415,961	G → A	1.00	Exon	G → E	Core	NO
10G	I	13,324,201	C → T	1.00	IG	—	Arm	—
10G	II	47,891	T → A	1.00	Intron	—	Tip	YES
10G	II	2,178,419	G → A	1.00	Intron	—	Arm	NO
10G	II	2,558,885	C → G	1.00	Exon	M → I	Arm	NO
10G	II	3,209,474	T → C	1.00	IG	—	Arm	—
10G	II	3,454,997	T → A	1.00	IG	—	Arm	—
10G	II	4,745,511	A → G	1.00	IG	—	Arm	—
10G	II	5,678,688	T → A	1.00	Intron	—	Core	NO
10G	II	5,956,261	C → A	1.00	Intron	—	Core	NO
10G	II	6,034,646	A → T	1.00	IG	—	Core	—
10G	II	8,117,390	C → T	1.00	Intron	—	Core	NO
10G	II	12,219,758	T → A	0.25	Intron	—	Arm	YES
10G	II	12,357,137	A → C	1.00	IG	—	Arm	—
10G	II	13,194,611	C → T	1.00	IG	—	Arm	—
10G	II	14,975,027	A → T	1.00	Intron	—	Tip	YES
10G	II	15,227,787	T → A	0.25	Intron	—	Tip	YES
10G	III	1,097,746	A → T	1.00	IG	—	Arm	—
10G	III	2,116,103	G → T	0.25	Intron	—	Arm	NO
10G	III	2,578,114	C → G	1.00	IG	—	Arm	—
10G	III	2,694,428	T → A	1.00	Intron	—	Arm	YES
10G	III	5,306,761	C → T	1.00	IG	—	Core	—
10G	III	5,327,869	T → A	1.00	Exon	I → N	Core	YES
10G	III	6,565,577	A → T	1.00	IG	—	Core	—
10G	III	6,746,646	T → C	1.00	Intron	—	Core	NO

10G	III	9,173,139	C → A	0.50	IG	—	Core	—
10G	III	9,738,288	T → A	1.00	Intron	—	Core	NO
10G	III	10,014,891	A → T	1.00	Intron	—	Core	NO
10G	III	10,381,662	C → T	1.00	IG	—	Arm	—
10G	III	10,430,634	T → A	1.00	Intron	—	Arm	NO
10G	III	10,993,532	T → C	1.00	Intron	—	Arm	NO
10G	III	11,148,610	G → A	0.25	Intron	—	Arm	YES
10G	III	12,110,798	G → T	1.00	Intron	—	Arm	NO
10G	III	12,315,574	T → C	1.00	Exon	Synonymous	Arm	NO
10G	III	12,646,817	T → C	1.00	Intron	—	Arm	NO
10G	III	12,706,003	T → A	1.00	Intron	—	Arm	NO
10G	III	13,446,069	A → T	1.00	Intron	—	Tip	YES
10G	III	13,671,116	C → A	1.00	IG	—	Tip	—
10G	III	13,754,663	C → T	1.00	Intron	—	Tip	YES
10G	IV	6,411,506	C → T	1.00	Intron	—	Core	NO
10G	IV	8,706,504	A → C	1.00	IG	—	Core	—
10G	IV	9,206,887	G → T	1.00	Exon	C → F	Core	NO
10G	IV	11,843,779	A → C	1.00	IG	—	Core	—
10G	IV	11,862,401	C → T	1.00	Exon	S → L	Core	YES
10G	IV	14,906,422	T → A	1.00	Intron	—	Arm	YES
10G	V	3,607,090	C → T	1.00	Exon	C → Y	Arm	NO
10G	V	4,246,567	G → A	0.75	IG	—	Arm	—
10G	V	4,246,597	G → A	0.75	IG	—	Arm	—
10G	V	5,516,412	A → T	1.00	Exon	Synonymous	Arm	YES
10G	V	5,935,838	T → A	1.00	Intron	—	Core	NO
10G	V	7,795,807	A → T	1.00	IG	—	Core	—
10G	V	8,730,527	T → A	1.00	Intron	—	Core	NO
10G	V	9,437,915	A → T	1.00	IG	—	Core	—
10G	V	10,099,068	G → T	1.00	IG	—	Core	—
10G	V	10,184,380	C → T	1.00	Exon	Synonymous	Core	NO
10G	V	10,643,984	C → G	1.00	Exon	F → L	Core	NO

10G	V	11,781,791	A → G	1.00	Intron	—	Core	NO
10G	V	15,739,236	G → A	1.00	IG	—	Core	—
10G	V	15,770,389	C → A	1.00	Exon	S → *	Core	NO
10G	X	316,605	G → A	1.00	IG	—	Tip	—
10G	X	2,904,531	T → A	1.00	IG	—	Arm	—
10G	X	3,519,386	T → A	1.00	IG	—	Arm	—
10G	X	4,250,598	C → T	0.75	Exon	A → V	Arm	NO
10G	X	5,355,983	C → T	1.00	Exon	M → I	Arm	NO
10G	X	10,518,584	C → A	1.00	Exon	S → Y	Core	NO
10G	X	11,164,437	C → G	1.00	Exon	M → I	Core	NO
10G	X	13,209,971	C → T	1.00	IG	—	Arm	—
10G	X	15,441,297	C → T	1.00	IG	—	Arm	—
10G	X	17,073,654	A → T	1.00	IG	—	Tip	—
10G	X	17,528,712	T → A	1.00	Intron	—	Tip	NO
10H	I	1,318,035	C → T	1.00	Intron	—	Arm	NO
10H	I	1,486,230	T → C	1.00	Exon	V → A	Arm	YES
10H	I	1,848,707	G → A	1.00	Intron	—	Arm	YES
10H	I	9,100,511	T → A	1.00	IG	—	Core	—
10H	I	9,932,915	T → C	1.00	Intron	—	Core	YES
10H	I	10,400,457	C → T	1.00	IG	—	Core	—
10H	I	11,299,568	T → A	1.00	IG	—	Arm	—
10H	I	11,447,847	G → A	1.00	IG	—	Arm	—
10H	I	11,540,839	C → T	1.00	Exon	G → D	Arm	YES
10H	I	11,955,329	A → C	1.00	Exon	C → G	Arm	YES
10H	I	12,191,374	C → A	1.00	IG	—	Arm	—
10H	II	1,273,951	G → A	1.00	Intron	—	Arm	NO
10H	II	1,337,036	A → T	1.00	Intron	—	Arm	NO
10H	II	3,962,097	A → T	1.00	Intron	—	Arm	NO
10H	II	6,112,040	C → A	1.00	Exon	V → F	Core	YES
10H	II	6,580,006	T → A	1.00	Exon	* → Y	Core	NO
10H	II	7,007,941	C → T	1.00	Exon	P → L	Core	NO

10H	II	9,477,947	T → A	1.00	Intron	—	Core	NO
10H	II	12,085,447	T → A	1.00	Intron	—	Arm	YES
10H	II	12,270,613	T → A	1.00	Intron	—	Arm	YES
10H	II	13,367,288	T → A	1.00	IG	—	Arm	—
10H	II	13,611,104	C → A	1.00	Intron	—	Arm	NO
10H	III	1,012,004	G → T	1.00	IG	—	Arm	—
10H	III	1,808,081	G → C	1.00	Exon	T → S	Arm	YES
10H	III	2,046,431	C → T	1.00	Intron	—	Arm	NO
10H	III	2,678,107	C → T	1.00	Intron	—	Arm	NO
10H	III	2,781,200	G → A	1.00	Exon	Synonymous	Arm	YES
10H	III	4,587,833	A → C	1.00	Exon	Synonymous	Core	YES
10H	III	5,973,196	G → T	1.00	Intron	—	Core	YES
10H	III	6,105,589	G → A	1.00	IG	—	Core	—
10H	III	6,309,540	C → A	1.00	Exon	Q → K	Core	NO
10H	III	9,029,619	T → A	1.00	IG	—	Core	—
10H	III	10,201,506	G → A	1.00	IG	—	Core	—
10H	III	11,106,621	G → C	1.00	IG	—	Arm	—
10H	III	12,133,061	G → C	1.00	IG	—	Arm	—
10H	III	12,808,957	T → G	1.00	Intron	—	Arm	NO
10H	III	12,913,220	C → T	1.00	Intron	—	Arm	NO
10H	III	13,049,346	A → T	1.00	Exon	I → L	Arm	NO
10H	IV	88,765	C → T	1.00	Exon	G → R	Tip	NO
10H	IV	354,616	T → A	1.00	Intron	—	Tip	NO
10H	IV	1,218,566	G → T	1.00	IG	—	Arm	—
10H	IV	1,405,597	T → A	1.00	IG	—	Arm	—
10H	IV	1,680,843	C → T	1.00	Intron	—	Arm	NO
10H	IV	2,787,321	T → A	1.00	IG	—	Arm	—
10H	IV	2,851,232	A → T	1.00	Exon	Synonymous	Arm	NO
10H	IV	3,392,245	T → G	1.00	IG	—	Arm	—
10H	IV	7,798,188	C → T	1.00	IG	—	Core	—
10H	IV	8,446,138	A → T	1.00	IG	—	Core	—

10H	IV	8,888,836	A → T	1.00	IG	—	Core	—
10H	IV	12,345,674	T → G	1.00	IG	—	Core	—
10H	IV	12,522,991	G → T	1.00	IG	—	Core	—
10H	IV	14,786,458	C → A	1.00	IG	—	Arm	—
10H	IV	15,221,058	T → C	1.00	IG	—	Arm	—
10H	IV	15,780,675	A → T	1.00	IG	—	Arm	—
10H	V	456,715	C → T	1.00	Exon	P → S	Tip	NO
10H	V	2,197,234	A → T	1.00	IG	—	Arm	—
10H	V	3,093,838	C → G	1.00	Exon	* → S	Arm	NO
10H	V	5,396,687	C → T	1.00	IG	—	Arm	—
10H	V	8,372,813	T → G	1.00	Exon	F → V	Core	NO
10H	V	12,243,975	T → A	1.00	Intron	—	Core	YES
10H	V	12,730,300	T → A	1.00	Intron	—	Core	NO
10H	V	13,646,911	A → T	1.00	Exon	L → *	Core	NO
10H	V	14,931,142	G → A	1.00	IG	—	Core	—
10H	V	15,577,047	A → T	1.00	IG	—	Core	—
10H	V	15,733,417	G → T	1.00	Intron	—	Core	NO
10H	V	16,370,356	A → T	1.00	Intron	—	Core	NO
10H	V	19,105,438	T → C	1.00	Intron	—	Arm	NO
10H	V	20,277,985	A → T	1.00	IG	—	Arm	—
10H	X	2,381,648	G → A	1.00	Intron	—	Arm	NO
10H	X	2,531,379	G → A	1.00	Intron	—	Arm	NO
10H	X	4,019,400	C → G	1.00	Exon	P → R	Arm	YES
10H	X	4,994,530	G → A	1.00	Intron	—	Arm	NO
10H	X	5,567,386	G → A	1.00	IG	—	Arm	—
10H	X	6,836,895	A → G	1.00	Exon	Synonymous	Core	NO
10H	X	8,757,393	T → A	1.00	Intron	—	Core	NO
10H	X	10,281,219	T → A	1.00	Intron	—	Core	NO
10H	X	11,451,689	G → A	1.00	IG	—	Core	—
10H	X	12,686,670	G → A	1.00	Exon	G → R	Arm	NO
10H	X	12,977,043	T → A	1.00	IG	—	Arm	—

10H	X	14,702,866	C → T	1.00		Exon	Synonymous	Arm	YES
10H	X	15,575,828	G → A	1.00		IG	—	Arm	—
10H	X	16,070,598	G → T	1.00		IG	—	Arm	—
10I	I	499,086	A → T	1.00		Intron	—	Tip	YES
10I	I	1,137,431	G → A	1.00		Intron	—	Arm	NO
10I	I	1,675,396	T → A	1.00		Intron	—	Arm	NO
10I	I	2,891,540	A → T	1.00		Intron	—	Arm	YES
10I	I	9,400,348	G → A	1.00		Intron	—	Core	YES
10I	I	9,780,722	G → A	1.00		Intron	—	Core	NO
10I	I	11,051,522	C → A	1.00		Intron	—	Arm	YES
10I	I	11,577,406	G → A	0.75		Intron	—	Arm	YES
10I	I	13,507,078	C → T	1.00		IG	—	Arm	—
10I	I	14,991,957	T → A	1.00		IG	—	Tip	—
10I	II	1,357,725	A → T	1.00		Intron	—	Arm	NO
10I	II	5,852,566	T → A	1.00		IG	—	Core	—
10I	II	6,239,720	G → A	1.00		Intron	—	Core	YES
10I	II	6,780,295	A → T	1.00		Intron	—	Core	NO
10I	II	7,800,394	A → G	1.00		IG	—	Core	—
10I	II	9,128,702	T → C	1.00		Intron	—	Core	YES
10I	II	9,707,015	T → C	1.00		Exon	I → V	Core	NO
10I	II	9,874,348	G → A	1.00		Exon	A → V	Core	NO
10I	II	13,885,014	G → A	0.50		Exon	R → K	Arm	YES
10I	II	14,517,587	A → T	0.25		IG	—	Arm	—
10I	II	14,630,260	A → C	1.00		IG	—	Tip	—
10I	II	14,890,586	A → G	1.00		IG	—	Tip	—
10I	II	14,977,009	G → A	1.00		IG	—	Tip	—
10I	II	15,055,412	A → T	1.00		Intron	—	Tip	NO
10I	III	1,505,620	T → C	1.00		Intron	—	Arm	NO
10I	III	2,600,439	G → A	1.00		Intron	—	Arm	YES
10I	III	2,829,783	A → T	1.00		Intron	—	Arm	YES
10I	III	3,714,645	T → A	1.00		Intron	—	Arm	NO

10I	III	4,730,784	C → A	1.00	Exon	P → T	Core	NO
10I	III	7,092,106	G → C	1.00	Exon	K → N	Core	NO
10I	III	8,254,454	A → G	1.00	IG	—	Core	—
10I	III	9,105,162	A → T	1.00	Intron	—	Core	NO
10I	III	9,508,397	T → A	1.00	Exon	L → *	Core	YES
10I	III	11,764,659	T → A	0.50	Intron	—	Arm	NO
10I	III	13,219,566	C → G	1.00	IG	—	Tip	—
10I	IV	1,678,192	C → T	1.00	Intron	—	Arm	NO
10I	IV	2,396,942	T → C	1.00	Intron	—	Arm	NO
10I	IV	5,674,622	A → G	1.00	IG	—	Core	—
10I	IV	5,854,318	T → A	1.00	Intron	—	Core	NO
10I	IV	5,884,473	G → A	1.00	Intron	—	Core	NO
10I	IV	6,502,085	G → A	1.00	IG	—	Core	—
10I	IV	7,869,254	A → T	1.00	Intron	—	Core	NO
10I	IV	9,221,990	C → T	1.00	IG	—	Core	—
10I	IV	12,264,918	A → T	1.00	IG	—	Core	—
10I	IV	12,761,949	T → A	1.00	IG	—	Core	—
10I	IV	13,604,442	A → T	1.00	IG	—	Arm	—
10I	IV	16,259,509	C → G	1.00	IG	—	Arm	—
10I	IV	16,384,460	C → A	1.00	IG	—	Arm	—
10I	V	1,122,771	A → T	1.00	Intron	—	Arm	NO
10I	V	1,122,800	T → C	1.00	Intron	—	Arm	NO
10I	V	1,182,910	C → A	1.00	IG	—	Arm	—
10I	V	1,347,941	A → T	1.00	Intron	—	Arm	NO
10I	V	2,868,702	G → A	1.00	Intron	—	Arm	NO
10I	V	3,449,541	T → A	1.00	IG	—	Arm	—
10I	V	4,803,658	A → T	1.00	Exon	S → T	Arm	NO
10I	V	5,721,664	G → C	1.00	Exon	V → L	Arm	YES
10I	V	6,788,854	G → A	1.00	Exon	Synonymous	Core	YES
10I	V	6,819,869	G → A	1.00	Exon	Synonymous	Core	NO
10I	V	7,893,464	T → A	1.00	Intron	—	Core	NO

10I	V	12,612,360	G → T	1.00	Intron	—	Core	NO
10I	V	14,410,593	C → G	1.00	Intron	—	Core	NO
10I	V	14,564,889	G → A	1.00	Exon	Synonymous	Core	NO
10I	V	16,164,342	G → T	1.00	Exon	E → D	Core	NO
10I	V	17,857,304	G → A	1.00	IG	—	Arm	—
10I	V	18,810,585	A → C	1.00	IG	—	Arm	—
10I	V	19,397,527	C → T	1.00	IG	—	Arm	—
10I	V	19,820,766	T → A	1.00	Intron	—	Arm	NO
10I	V	19,838,738	A → G	1.00	Intron	—	Arm	NO
10I	V	20,735,781	C → G	1.00	Intron	—	Tip	NO
10I	X	296,047	C → T	1.00	IG	—	Tip	—
10I	X	2,085,694	G → A	1.00	IG	—	Arm	—
10I	X	4,067,129	T → A	1.00	Intron	—	Arm	NO
10I	X	4,067,176	T → C	1.00	Intron	—	Arm	NO
10I	X	4,910,521	A → T	1.00	Intron	—	Arm	YES
10I	X	5,040,316	C → T	1.00	IG	—	Arm	—
10I	X	6,220,733	G → A	1.00	IG	—	Core	—
10I	X	8,767,407	C → A	1.00	IG	—	Core	—
10I	X	12,151,997	C → G	1.00	Exon	L → F	Core	NO
10I	X	13,395,240	G → T	1.00	IG	—	Arm	—
10I	X	14,102,367	C → T	1.00	Exon	Synonymous	Arm	YES
10I	X	15,844,675	G → T	1.00	Intron	—	Arm	YES
10I	X	16,535,719	G → A	1.00	IG	—	Tip	—
10J	I	86,868	C → T	0.25	Exon	Synonymous	Tip	NO
10J	I	2,489,066	C → A	1.00	Intron	—	Arm	YES
10J	I	2,882,752	C → A	1.00	Intron	—	Arm	NO
10J	I	3,809,025	A → G	1.00	Exon	Synonymous	Arm	NO
10J	I	4,245,190	C → T	1.00	Intron	—	Core	NO
10J	I	5,332,822	G → T	1.00	IG	—	Core	—
10J	I	5,989,609	G → A	1.00	Intron	—	Core	YES
10J	I	7,277,237	C → A	1.00	Intron	—	Core	NO

10J	I	9,190,623	G → C	1.00	Intron	—	Core	NO
10J	I	11,219,394	G → A	1.00	Intron	—	Arm	YES
10J	I	11,329,471	A → G	1.00	Intron	—	Arm	YES
10J	I	11,445,594	A → G	1.00	IG	—	Arm	—
10J	I	11,724,568	C → T	1.00	Intron	—	Arm	NO
10J	I	13,534,421	A → G	1.00	IG	—	Arm	—
10J	I	14,807,129	A → T	1.00	IG	—	Arm	—
10J	II	1,581,002	T → A	1.00	IG	—	Arm	—
10J	II	3,495,783	A → T	0.25	Intron	—	Arm	YES
10J	II	4,955,778	G → T	1.00	Exon	F → L	Core	YES
10J	II	7,718,005	G → T	1.00	Intron	—	Core	NO
10J	II	8,752,503	A → G	0.75	Exon	Synonymous	Core	NO
10J	II	9,900,271	A → G	1.00	IG	—	Core	—
10J	II	12,192,201	G → A	1.00	Intron	—	Arm	YES
10J	II	13,224,144	A → G	1.00	IG	—	Arm	—
10J	II	13,898,739	G → C	0.25	Exon	D → E	Arm	NO
10J	III	2,208,425	T → A	1.00	Intron	—	Arm	NO
10J	III	4,179,912	C → T	1.00	Intron	—	Core	NO
10J	III	4,234,863	A → G	0.75	IG	—	Core	—
10J	III	5,226,801	A → T	1.00	Exon	K → *	Core	YES
10J	III	7,298,924	C → T	0.25	Intron	—	Core	NO
10J	III	7,337,720	C → T	0.25	Exon	Synonymous	Core	NO
10J	III	7,712,149	C → A	1.00	IG	—	Core	—
10J	III	9,105,162	A → T	1.00	Intron	—	Core	NO
10J	III	10,999,756	C → G	1.00	IG	—	Arm	—
10J	III	12,038,455	A → T	1.00	Intron	—	Arm	YES
10J	III	12,128,582	A → T	1.00	Intron	—	Arm	NO
10J	III	12,450,979	G → A	1.00	Intron	—	Arm	YES
10J	III	13,468,870	C → T	1.00	Intron	—	Tip	YES
10J	IV	237,852	A → T	1.00	Exon	L → *	Tip	YES
10J	IV	1,330,602	T → A	1.00	Intron	—	Arm	YES

10J	IV	1,440,982	A → T	1.00	Intron	—	Arm	YES
10J	IV	1,749,074	T → G	1.00	Intron	—	Arm	YES
10J	IV	1,863,860	C → A	1.00	Intron	—	Arm	YES
10J	IV	3,718,575	G → T	1.00	Intron	—	Arm	NO
10J	IV	3,819,028	C → T	1.00	Intron	—	Arm	NO
10J	IV	5,412,651	C → T	1.00	IG	—	Core	—
10J	IV	6,842,949	T → A	1.00	IG	—	Core	—
10J	IV	7,873,662	G → A	1.00	IG	—	Core	—
10J	IV	8,351,057	T → C	1.00	IG	—	Core	—
10J	IV	10,798,873	G → A	1.00	IG	—	Core	—
10J	IV	11,009,164	G → A	1.00	IG	—	Core	—
10J	IV	11,057,882	T → A	1.00	Intron	—	Core	YES
10J	IV	13,793,313	T → A	1.00	Intron	—	Arm	YES
10J	IV	13,934,776	A → T	1.00	Intron	—	Arm	NO
10J	IV	15,610,768	T → C	1.00	IG	—	Arm	—
10J	IV	15,677,491	T → A	1.00	IG	—	Arm	—
10J	IV	16,274,547	A → C	1.00	IG	—	Arm	—
10J	IV	16,393,158	G → T	1.00	IG	—	Arm	—
10J	V	108,963	A → T	1.00	Intron	—	Tip	NO
10J	V	2,162,261	T → A	1.00	Intron	—	Arm	NO
10J	V	3,257,252	A → T	1.00	IG	—	Arm	—
10J	V	3,299,481	T → C	1.00	Exon	I → V	Arm	NO
10J	V	3,715,466	A → T	1.00	Intron	—	Arm	NO
10J	V	3,736,330	G → C	1.00	Intron	—	Arm	NO
10J	V	3,782,509	C → T	1.00	Exon	Synonymous	Arm	NO
10J	V	5,896,686	C → A	1.00	Exon	N → K	Arm	NO
10J	V	5,931,464	T → C	1.00	Exon	S → P	Core	NO
10J	V	7,876,824	T → A	1.00	IG	—	Core	—
10J	V	7,885,117	G → A	1.00	IG	—	Core	—
10J	V	8,604,037	C → T	1.00	Exon	T → I	Core	NO
10J	V	13,316,818	A → T	1.00	IG	—	Core	—

	10J	V	13,446,315	C → T	1.00	Exon	S → L	Core	NO
	10J	V	16,476,077	C → T	1.00	IG	—	Core	—
	10J	V	17,219,113	G → A	1.00	Intron	—	Arm	NO
	10J	V	17,608,148	G → C	0.25	Exon	A → P	Arm	NO
	10J	V	18,113,230	G → A	1.00	Intron	—	Arm	YES
	10J	V	18,239,652	T → A	1.00	Intron	—	Arm	NO
	10J	V	19,487,606	A → T	1.00	IG	—	Arm	—
	10J	V	19,607,116	T → A	1.00	IG	—	Arm	—
	10J	X	570,896	G → C	0.25	Exon	P → A	Tip	NO
	10J	X	1,127,788	G → A	1.00	Exon	D → N	Arm	NO
	10J	X	2,977,636	A → T	1.00	Intron	—	Arm	NO
	10J	X	3,635,986	G → A	1.00	IG	—	Arm	—
	10J	X	3,805,693	C → T	1.00	Exon	P → S	Arm	NO
	10J	X	5,267,299	G → A	1.00	Exon	E → K	Arm	NO
	10J	X	6,425,525	T → C	1.00	Exon	Synonymous	Core	NO
	10J	X	7,033,418	A → G	1.00	Exon		Core	NO
	10J	X	7,242,721	C → A	1.00	Exon	G → W	Core	YES
	10J	X	8,854,855	A → T	1.00	IG	—	Core	—
	10J	X	13,471,508	T → C	1.00	IG	—	Arm	—
	10J	X	13,729,632	C → T	1.00	Exon	Synonymous	Arm	NO
	10J	X	16,278,994	G → A	1.00	Exon		Arm	NO
<i>N = 100</i>	100A	I	291,570	C → T	1.00	Intron	—	Tip	YES
	100A	I	544,990	C → T	1.00	IG	—	Arm	—
	100A	I	1,524,869	A → G	1.00	Intron	—	Arm	NO
	100A	I	1,958,142	C → T	1.00	Exon	G → E	Arm	YES
	100A	I	3,561,859	T → A	1.00	Intron	—	Arm	NO
	100A	I	3,810,274	G → A	1.00	Intron	—	Arm	NO
	100A	I	7,557,602	G → A	1.00	Exon	G → R	Core	YES
	100A	I	8,434,917	A → T	1.00	Intron	—	Core	YES
	100A	I	9,065,943	G → T	1.00	Exon	A → S	Core	YES
	100A	I	9,390,989	C → T	1.00	Exon	V → I	Core	NO

100A	I	9,747,838	T → A	1.00	Intron	—	Core	NO
100A	I	11,968,891	G → T	1.00	IG	—	Arm	—
100A	I	14,482,021	T → A	1.00	Intron	—	Arm	NO
100A	I	14,599,352	A → T	0.60	Intron	—	Arm	NO
100A	II	1,845,467	C → T	1.00	Exon	P → S	Arm	NO
100A	II	2,069,697	T → A	0.20	IG	—	Arm	—
100A	II	2,705,618	C → T	0.20	IG	—	Arm	—
100A	II	4,101,354	C → T	0.40	IG	—	Arm	—
100A	II	4,207,606	A → G	1.00	Intron	—	Arm	NO
100A	II	4,207,638	A → T	1.00	Intron	—	Arm	NO
100A	II	4,319,243	G → A	0.40	Exon	S → F	Arm	NO
100A	II	4,549,287	T → A	0.60	IG	—	Arm	—
100A	II	7,352,002	A → G	1.00	Exon	S → P	Core	YES
100A	II	7,902,556	G → A	1.00	Exon	V → I	Core	NO
100A	II	9,443,008	G → A	1.00	Intron	—	Core	NO
100A	II	11,489,971	G → A	1.00	Exon	Synonymous	Core	YES
100A	II	14,312,832	G → A	0.40	IG	—	Arm	—
100A	II	14,408,385	A → T	0.20	IG	—	Arm	—
100A	III	6,037	T → A	1.00	Intron	—	Tip	NO
100A	III	841,599	A → T	0.20	IG	—	Arm	—
100A	III	1,087,174	A → C	0.20	Intron	—	Arm	YES
100A	III	1,128,528	G → C	1.00	Intron	—	Arm	NO
100A	III	1,669,360	A → T	0.40	IG	—	Arm	—
100A	III	1,991,050	A → T	1.00	IG	—	Arm	—
100A	III	2,359,418	A → G	1.00	Intron	—	Arm	NO
100A	III	2,879,079	T → G	1.00	Intron	—	Arm	NO
100A	III	4,690,480	C → T	1.00	Intron	—	Core	NO
100A	III	5,492,422	G → T	1.00	Intron	—	Core	NO
100A	III	7,261,822	A → G	1.00	Intron	—	Core	NO
100A	III	7,315,103	A → G	1.00	Exon	I → T	Core	NO
100A	III	8,614,904	C → A	0.60	Exon	V → L	Core	NO

100A	III	11,851,954	A → T	1.00	Intron	—	Arm	NO
100A	III	12,453,526	C → A	0.40	IG	—	Arm	—
100A	III	12,542,281	C → T	1.00	Intron	—	Arm	YES
100A	IV	1,630,511	T → A	1.00	Intron	—	Arm	NO
100A	IV	2,523,616	G → T	0.60	Intron	—	Arm	NO
100A	IV	3,747,132	A → T	1.00	Intron	—	Arm	NO
100A	IV	6,709,690	A → T	1.00	IG	—	Core	—
100A	IV	6,810,753	T → A	1.00	IG	—	Core	—
100A	IV	7,163,793	C → T	1.00	Exon	R → K	Core	YES
100A	IV	7,627,020	G → A	1.00	Exon	C → Y	Core	NO
100A	IV	10,147,456	G → A	1.00	Exon	Synonymous	Core	YES
100A	IV	13,384,557	A → T	1.00	Intron	—	Arm	NO
100A	IV	13,389,700	A → T	1.00	Intron	—	Arm	YES
100A	IV	13,641,929	A → T	1.00	Intron	—	Arm	NO
100A	IV	14,993,316	A → G	1.00	Exon	K → R	Arm	NO
100A	IV	15,185,052	G → T	1.00	IG	—	Arm	—
100A	IV	16,173,789	A → T	0.60	IG	—	Arm	—
100A	IV	16,534,079	G → A	1.00	IG	—	Arm	—
100A	IV	16,678,364	G → A	1.00	IG	—	Arm	—
100A	IV	17,131,329	C → T	1.00	IG	—	Tip	—
100A	IV	17,276,373	A → T	1.00	Intron	—	Tip	NO
100A	V	1,592,867	A → G	0.60	IG	—	Arm	—
100A	V	4,072,940	T → G	1.00	IG	—	Arm	—
100A	V	6,104,426	G → A	1.00	IG	—	Core	—
100A	V	7,712,044	A → G	0.60	IG	—	Core	—
100A	V	10,078,104	T → A	1.00	Exon	E → V	Core	NO
100A	V	10,257,779	T → A	1.00	Intron	—	Core	NO
100A	V	11,400,480	C → T	1.00	Exon	Synonymous	Core	NO
100A	V	11,992,405	T → G	1.00	Intron	—	Core	YES
100A	V	12,013,544	A → T	0.20	Exon	F → I	Core	YES
100A	V	12,518,869	G → C	1.00	IG	—	Core	—

100A	V	13,486,217	G → T	1.00	IG	—	Core	—
100A	V	15,164,088	A → G	1.00	Exon	H → R	Core	NO
100A	V	18,494,316	G → A	1.00	Intron	—	Arm	NO
100A	V	19,314,940	G → A	0.20	Intron	—	Arm	NO
100A	V	20,530,292	G → T	1.00	Exon	P → Q	Tip	NO
100A	X	986,083	A → T	1.00	Exon	L → *	Arm	YES
100A	X	4,285,564	T → A	1.00	IG	—	Arm	—
100A	X	4,793,840	A → T	1.00	Exon	Synonymous	Arm	NO
100A	X	7,198,788	T → A	1.00	IG	—	Core	—
100A	X	9,617,278	G → A	1.00	UTR	—	Core	NO
100A	X	9,633,449	G → T	1.00	Exon	S → Y	Core	YES
100A	X	10,219,594	C → T	1.00	IG	—	Core	—
100A	X	11,762,434	C → T	1.00	Intron	—	Core	NO
100A	X	13,240,277	T → A	1.00	IG	—	Arm	—
100A	X	16,922,258	G → A	1.00	Exon	Synonymous	Tip	NO
100A	X	17,361,247	T → C	1.00	Exon	M → T	Tip	NO
100B	I	68,202	G → T	1.00	IG	—	Tip	—
100B	I	1,196,371	A → T	1.00	Intron	—	Arm	NO
100B	I	1,281,056	G → A	0.60	IG	—	Arm	—
100B	I	1,920,060	C → A	1.00	Intron	—	Arm	NO
100B	I	2,276,949	G → T	0.60	IG	—	Arm	—
100B	I	3,451,579	A → T	0.20	Intron	—	Arm	YES
100B	I	3,469,526	A → C	0.20	Intron	—	Arm	YES
100B	I	3,814,097	G → A	0.20	Exon	T → I	Arm	NO
100B	I	4,014,549	T → A	0.20	Intron	—	Core	YES
100B	I	4,324,059	A → C	1.00	Exon	I → L	Core	YES
100B	I	4,847,012	T → A	1.00	Intron	—	Core	NO
100B	I	6,185,046	T → A	1.00	Exon	L → M	Core	YES
100B	I	6,394,921	A → T	1.00	IG	—	Core	—
100B	I	7,757,701	A → G	1.00	IG	—	Core	—
100B	I	8,001,445	C → T	0.20	Exon	Synonymous	Core	NO

100B	I	8,461,439	G → A	1.00	Intron	—	Core	NO
100B	I	12,748,001	A → T	0.20	Intron	—	Arm	NO
100B	I	13,610,150	A → T	0.20	Intron	—	Arm	YES
100B	I	14,675,948	G → T	0.20	Intron	—	Arm	NO
100B	I	14,913,277	C → G	1.00	IG	—	Tip	—
100B	II	564,624	C → A	1.00	IG	—	Arm	—
100B	II	2,571,142	A → T	0.40	Intron	—	Arm	NO
100B	II	2,673,304	C → T	1.00	Intron	—	Arm	NO
100B	II	2,960,542	T → A	1.00	Intron	—	Arm	NO
100B	II	5,091,160	A → T	0.20	Exon	V → E	Core	NO
100B	II	7,112,292	G → C	0.20	Intron	—	Core	YES
100B	II	7,822,495	C → T	0.60	Exon	W → *	Core	NO
100B	II	8,767,764	C → T	1.00	Intron	—	Core	NO
100B	II	8,833,292	A → C	1.00	IG	—	Core	—
100B	II	9,630,096	T → C	0.20	IG	—	Core	—
100B	II	9,713,306	T → A	1.00	IG	—	Core	—
100B	II	10,668,937	G → T	0.60	IG	—	Core	—
100B	II	11,404,082	C → T	0.60	IG	—	Core	—
100B	II	11,632,353	C → G	0.20	Intron	—	Core	NO
100B	II	12,112,220	A → T	0.20	Intron	—	Arm	NO
100B	II	14,267,669	G → T	1.00	Intron	—	Arm	NO
100B	II	14,358,648	T → G	1.00	Exon	V → G	Arm	YES
100B	II	14,359,495	A → G	1.00	Exon	D → G	Arm	YES
100B	III	2,382,180	T → A	0.20	Intron	—	Arm	NO
100B	III	5,263,143	T → A	0.60	Intron	—	Core	NO
100B	III	6,432,108	C → T	0.40	IG	—	Core	—
100B	III	6,854,099	C → T	1.00	Exon	R → K	Core	NO
100B	III	11,024,073	T → A	0.60	Intron	—	Arm	NO
100B	III	11,480,588	G → A	0.20	IG	—	Arm	—
100B	III	11,856,811	T → A	1.00	Intron	—	Arm	NO
100B	IV	975,514	C → T	1.00	Exon	P → S	Arm	NO

100B	IV	1,035,029	T → A	0.20	IG	—	Arm	—
100B	IV	1,286,666	A → G	0.60	IG	—	Arm	—
100B	IV	1,732,866	C → T	0.60	Intron	—	Arm	YES
100B	IV	1,936,005	T → C	0.20	Intron	—	Arm	NO
100B	IV	2,682,381	G → A	0.20	Intron	—	Arm	YES
100B	IV	3,544,309	G → T	1.00	Intron	—	Arm	NO
100B	IV	4,119,199	A → T	0.60	IG	—	Core	—
100B	IV	4,227,699	T → C	0.20	Intron	—	Core	NO
100B	IV	5,252,816	C → T	0.20	IG	—	Core	—
100B	IV	5,402,247	A → T	1.00	IG	—	Core	—
100B	IV	5,928,709	C → T	1.00	IG	—	Core	—
100B	IV	6,655,184	G → A	1.00	IG	—	Core	—
100B	IV	7,458,418	C → A	0.60	IG	—	Core	—
100B	IV	9,853,167	C → T	1.00	Exon	P → L	Core	YES
100B	IV	9,880,158	A → C	1.00	Exon	Q → H	Core	NO
100B	IV	10,976,210	G → A	0.60	IG	—	Core	—
100B	IV	12,289,049	T → G	1.00	Exon	S → A	Core	YES
100B	IV	12,507,070	G → A	1.00	Exon	V → I	Core	NO
100B	IV	13,500,680	T → A	0.20	Intron	—	Arm	YES
100B	IV	14,489,540	C → G	1.00	Intron	—	Arm	NO
100B	IV	14,970,760	C → T	0.20	IG	—	Arm	—
100B	IV	16,213,910	T → A	0.60	IG	—	Arm	—
100B	V	1,376,223	T → A	0.20	Intron	—	Arm	YES
100B	V	1,954,664	A → G	1.00	Intron	—	Arm	NO
100B	V	2,935,198	A → T	1.00	IG	—	Arm	—
100B	V	3,358,872	G → A	0.20	Exon	Synonymous	Arm	NO
100B	V	3,674,523	T → G	1.00	Intron	—	Arm	NO
100B	V	5,116,989	T → G	0.20	Intron	—	Arm	NO
100B	V	5,213,554	C → T	1.00	IG	—	Arm	—
100B	V	5,727,852	T → A	1.00	Exon	L → F	Arm	NO
100B	V	6,283,636	C → A	1.00	Intron	—	Core	NO

100B	V	6,521,215	C → G	0.20	IG	—	Core	—
100B	V	8,404,811	G → A	1.00	IG	—	Core	—
100B	V	9,058,639	A → T	1.00	Intron	—	Core	NO
100B	V	10,975,980	C → A	0.20	Intron	—	Core	NO
100B	V	11,311,544	C → A	0.20	Exon	A → E	Core	NO
100B	V	13,292,028	T → G	1.00	Intron	—	Core	NO
100B	V	13,866,459	C → T	1.00	IG	—	Core	—
100B	V	14,263,811	G → T	0.20	IG	—	Core	—
100B	V	15,599,456	A → G	0.20	Exon	C → R	Core	NO
100B	V	18,205,446	G → A	0.20	Exon	R → Q	Arm	NO
100B	V	18,320,361	A → G	0.60	IG	—	Arm	—
100B	V	18,322,097	C → T	0.20	IG	—	Arm	—
100B	V	19,088,094	T → A	1.00	Intron	—	Arm	YES
100B	X	2,106,064	C → A	1.00	Intron	—	Arm	NO
100B	X	2,804,037	C → T	1.00	Intron	—	Arm	NO
100B	X	6,628,425	C → A	1.00	Intron	—	Core	NO
100B	X	6,976,843	T → G	0.20	IG	—	Core	—
100B	X	6,976,857	C → T	0.20	IG	—	Core	—
100B	X	7,042,718	T → C	1.00	IG	—	Core	—
100B	X	7,196,588	G → A	0.20	Exon	R → Q	Core	NO
100B	X	9,089,337	A → T	1.00	Intron	—	Core	NO
100B	X	10,414,726	A → G	1.00	Intron	—	Core	NO
100B	X	11,666,303	A → T	1.00	IG	—	Core	—
100B	X	15,533,392	T → G	1.00	IG	—	Arm	—
100B	X	16,121,147	G → A	1.00	Intron	—	Arm	NO
100C	I	237,592	T → A	1.00	Exon	R → *	Tip	NO
100C	I	322,323	G → A	1.00	Exon	R → W	Tip	YES
100C	I	2,179,426	G → C	0.20	Intron	—	Arm	YES
100C	I	3,072,566	A → T	0.20	Intron	—	Arm	YES
100C	I	3,387,886	C → G	1.00	Exon	R → P	Arm	YES
100C	I	3,796,070	A → T	0.20	Intron	—	Arm	YES

100C	I	4,303,556	A → G	1.00	IG	—	Core	—
100C	I	4,438,905	G → T	1.00	Intron	—	Core	YES
100C	I	4,915,106	G → C	0.20	IG	—	Core	—
100C	I	7,558,089	C → A	1.00	Exon	L → I	Core	YES
100C	I	8,090,897	A → G	0.80	Intron	—	Core	YES
100C	I	8,521,835	T → A	1.00	Intron	—	Core	NO
100C	I	12,910,169	G → T	0.20	IG	—	Arm	—
100C	I	12,963,256	T → A	1.00	Intron	—	Arm	YES
100C	I	13,286,160	G → A	0.20	Exon	H → Y	Arm	YES
100C	I	13,799,697	G → A	0.20	Exon	P → L	Arm	NO
100C	I	13,919,783	T → C	1.00	Exon	I → T	Arm	NO
100C	II	1,483,067	G → A	1.00	IG	—	Arm	—
100C	II	2,310,474	T → A	1.00	IG	—	Arm	—
100C	II	2,941,090	C → T	1.00	Exon	G → D	Arm	NO
100C	II	4,400,933	C → T	1.00	Exon	Synonymous	Arm	NO
100C	II	8,263,772	T → C	0.80	IG	—	Core	—
100C	II	9,232,313	T → A	1.00	Exon	* → K	Core	YES
100C	II	11,099,114	T → G	0.80	Intron	—	Core	NO
100C	II	11,849,976	G → A	1.00	Intron	—	Core	NO
100C	II	12,074,293	A → T	0.20	Intron	—	Arm	YES
100C	II	12,108,460	C → G	1.00	Exon	W → C	Arm	NO
100C	II	13,780,044	C → A	0.20	Intron	—	Arm	NO
100C	II	14,186,617	T → C	0.20	Intron	—	Arm	NO
100C	III	176,253	A → T	1.00	Exon	H → Q	Tip	NO
100C	III	1,100,337	T → A	1.00	IG	—	Arm	—
100C	III	2,511,934	T → A	0.20	IG	—	Arm	—
100C	III	3,090,459	C → T	1.00	Exon	P → S	Arm	YES
100C	III	4,898,531	C → T	0.80	Intron	—	Core	NO
100C	III	7,770,739	A → T	0.20	IG	—	Core	—
100C	III	7,789,403	C → T	1.00	IG	—	Core	—
100C	III	8,963,566	C → T	0.20	Intron	—	Core	NO

100C	III	9,574,180	T → A	1.00	Intron	—	Core	YES
100C	III	11,450,247	C → T	0.20	IG	—	Arm	—
100C	III	11,588,152	T → A	1.00	Intron	—	Arm	NO
100C	III	11,685,116	G → A	0.80	Intron	—	Arm	NO
100C	IV	1,397,269	C → T	1.00	Intron	—	Arm	NO
100C	IV	4,884,082	C → A	0.20	IG	—	Core	—
100C	IV	5,511,750	T → A	0.60	Intron	—	Core	YES
100C	IV	6,338,566	C → T	1.00	Intron	—	Core	YES
100C	IV	7,510,023	C → T	0.20	Exon	Synonymous	Core	NO
100C	IV	11,733,404	C → G	1.00	IG	—	Core	—
100C	IV	13,244,920	A → T	1.00	Intron	—	Arm	NO
100C	IV	13,278,116	A → T	1.00	Intron	—	Arm	YES
100C	IV	13,541,482	T → A	1.00	IG	—	Arm	—
100C	IV	13,564,954	T → C	0.20	Intron	—	Arm	NO
100C	IV	14,485,918	T → A	1.00	Intron	—	Arm	NO
100C	IV	15,028,934	G → A	1.00	Exon	Synonymous	Arm	YES
100C	IV	15,218,045	A → T	0.20	IG	—	Arm	—
100C	IV	16,206,149	C → T	1.00	IG	—	Arm	—
100C	IV	16,622,252	T → A	0.20	IG	—	Arm	—
100C	IV	16,891,983	T → A	1.00	IG	—	Tip	—
100C	V	50,044	C → A	1.00	Exon	D → Y	Tip	NO
100C	V	3,750,447	G → C	1.00	Exon	A → G	Arm	NO
100C	V	4,328,125	T → C	0.20	Intron	—	Arm	NO
100C	V	6,279,370	C → T	0.80	Exon	Synonymous	Core	NO
100C	V	7,461,963	T → G	0.20	IG	—	Core	—
100C	V	8,387,607	G → A	0.80	Exon	Synonymous	Core	NO
100C	V	8,910,324	C → A	0.20	Intron	—	Core	NO
100C	V	9,945,401	A → T	1.00	Exon	E → V	Core	NO
100C	V	10,338,608	C → A	0.20	IG	—	Core	—
100C	V	10,402,849	C → A	1.00	IG	—	Core	—
100C	V	10,748,249	C → T	1.00	Exon	Synonymous	Core	NO

100C	V	12,068,343	G → A	0.80	IG	—	Core	—
100C	V	14,403,893	T → C	0.80	IG	—	Core	—
100C	V	14,754,170	G → A	1.00	IG	—	Core	—
100C	V	14,754,745	A → T	1.00	IG	—	Core	—
100C	V	16,641,565	C → A	1.00	Exon	Y → *	Arm	NO
100C	V	18,790,998	G → C	1.00	IG	—	Arm	—
100C	V	19,953,540	A → T	1.00	Exon	K → N	Arm	NO
100C	V	20,275,886	T → C	1.00	IG	—	Arm	—
100C	X	1,154,716	C → A	1.00	IG	—	Arm	—
100C	X	1,989,267	G → C	1.00	Exon	F → L	Arm	YES
100C	X	3,211,217	A → G	1.00	Exon	Synonymous	Arm	YES
100C	X	5,799,379	G → T	1.00	IG	—	Arm	—
100C	X	5,890,752	C → T	0.80	Exon	Synonymous	Arm	NO
100C	X	6,043,807	A → T	1.00	IG	—	Arm	—
100C	X	6,190,103	A → C	1.00	IG	—	Core	—
100C	X	8,485,418	T → A	1.00	IG	—	Core	—
100C	X	9,815,260	C → T	0.20	Exon	Synonymous	Core	NO
100C	X	10,653,170	T → C	0.80	Intron	—	Core	NO
100C	X	12,493,480	A → T	0.20	Intron	—	Arm	NO
100C	X	13,536,236	C → A	0.20	Exon	L → I	Arm	NO
100C	X	13,941,369	G → A	0.80	IG	—	Arm	—
100C	X	14,883,885	G → A	0.20	IG	—	Arm	—
100C	X	16,556,321	T → G	0.20	IG	—	Tip	—
100C	X	17,658,261	A → G	1.00	IG	—	Tip	—
100D	I	704,182	T → C	0.40	Intron	—	Arm	YES
100D	I	1,108,452	A → T	1.00	Intron	—	Arm	NO
100D	I	1,402,060	C → A	1.00	Intron	—	Arm	NO
100D	I	3,104,941	G → T	1.00	Intron	—	Arm	NO
100D	I	5,098,490	A → T	1.00	Intron	—	Core	NO
100D	I	5,544,037	T → G	1.00	IG	—	Core	—
100D	I	6,410,847	A → T	1.00	Intron	—	Core	NO

100D	I	7,568,338	C → G	1.00	Intron	—	Core	YES
100D	I	8,065,748	G → A	1.00	Exon	Synonymous	Core	NO
100D	I	8,442,468	T → C	1.00	IG	—	Core	—
100D	I	9,751,638	T → A	1.00	IG	—	Core	—
100D	I	12,176,987	C → A	1.00	Intron	—	Arm	NO
100D	II	111,778	C → A	1.00	Intron	—	Tip	NO
100D	II	419,405	G → A	1.00	IG	—	Arm	—
100D	II	2,024,864	C → T	1.00	IG	—	Arm	—
100D	II	4,065,061	A → T	0.40	IG	—	Arm	—
100D	II	4,448,978	C → T	1.00	Exon	R → H	Arm	NO
100D	II	6,060,028	G → A	1.00	Exon	H → Y	Core	YES
100D	II	7,337,194	C → G	1.00	IG	—	Core	—
100D	II	8,666,198	A → T	1.00	Intron	—	Core	YES
100D	II	12,376,978	C → G	1.00	Intron	—	Arm	NO
100D	II	13,407,421	T → A	0.80	Intron	—	Arm	NO
100D	II	14,371,544	A → C	1.00	Exon	I → L	Arm	YES
100D	II	14,683,921	G → A	1.00	Intron	—	Tip	NO
100D	II	14,873,178	A → T	1.00	Intron	—	Tip	YES
100D	III	2,151,031	T → A	1.00	Intron	—	Arm	YES
100D	III	6,052,197	G → A	1.00	Exon	Synonymous	Core	NO
100D	III	6,587,397	T → A	0.20	IG	—	Core	—
100D	III	7,304,828	G → A	1.00	Intron	—	Core	NO
100D	III	7,683,692	A → T	1.00	IG	—	Core	—
100D	III	8,920,788	C → A	1.00	Exon	T → N	Core	NO
100D	III	9,675,139	A → T	0.20	IG	—	Core	—
100D	III	9,908,799	T → A	1.00	Intron	—	Core	YES
100D	III	10,609,906	G → T	1.00	Intron	—	Arm	NO
100D	III	10,820,273	T → A	1.00	IG	—	Arm	—
100D	III	11,964,741	A → T	0.80	Intron	—	Arm	NO
100D	III	12,582,638	T → A	0.40	IG	—	Arm	—
100D	III	12,910,177	C → T	0.20	IG	—	Arm	—

100D	IV	1,380,624	G → C	1.00		IG	—	Arm	—
100D	IV	1,995,490	T → A	1.00		Intron	—	Arm	NO
100D	IV	2,096,998	A → G	0.80		Intron	—	Arm	NO
100D	IV	2,595,319	G → T	0.20		IG	—	Arm	—
100D	IV	2,595,739	C → A	0.20		IG	—	Arm	—
100D	IV	3,564,365	T → A	1.00		IG	—	Arm	—
100D	IV	4,433,650	G → T	1.00		Intron	—	Core	NO
100D	IV	4,705,395	G → A	1.00		IG	—	Core	—
100D	IV	4,758,355	T → G	1.00		IG	—	Core	—
100D	IV	5,553,378	T → A	1.00		Intron	—	Core	YES
100D	IV	7,054,308	T → G	1.00		IG	—	Core	—
100D	IV	13,868,384	T → A	1.00		IG	—	Arm	—
100D	IV	13,868,399	C → T	1.00		IG	—	Arm	—
100D	IV	14,108,966	C → T	0.20		Intron	—	Arm	YES
100D	IV	14,211,912	A → T	1.00		IG	—	Arm	—
100D	IV	16,323,099	A → C	1.00		Exon	Synonymous	Arm	NO
100D	V	943,217	T → A	1.00		Intron	—	Arm	YES
100D	V	1,290,424	T → A	1.00		Intron	—	Arm	NO
100D	V	5,879,264	C → T	1.00		Exon	L → F	Arm	NO
100D	V	9,801,217	G → T	1.00		IG	—	Core	—
100D	V	10,316,443	C → T	1.00		Exon	E → K	Core	YES
100D	V	10,436,658	T → C	0.20		IG	—	Core	—
100D	V	10,706,979	T → G	1.00		IG	—	Core	—
100D	V	11,829,975	C → G	1.00		Intron	—	Core	NO
100D	V	13,841,340	G → T	1.00		Intron	—	Core	NO
100D	V	16,262,768	C → T	1.00		Intron	—	Core	NO
100D	V	16,961,834	A → T	1.00		Intron	—	Arm	YES
100D	V	20,046,925	C → G	1.00		Intron	—	Arm	NO
100D	V	20,135,879	C → T	1.00		IG	—	Arm	—
100D	X	1,044,985	C → T	1.00		Intron	—	Arm	YES
100D	X	1,135,723	A → C	1.00		Exon	W → G	Arm	NO

100D	X	1,755,086	T → G	1.00	IG	—	Arm	—
100D	X	2,091,195	A → T	0.40	Intron	—	Arm	YES
100D	X	4,328,240	C → G	1.00	IG	—	Arm	—
100D	X	4,421,234	T → C	1.00	IG	—	Arm	—
100D	X	5,189,914	T → A	1.00	IG	—	Arm	—
100D	X	5,189,926	A → C	1.00	IG	—	Arm	—
100D	X	9,217,864	A → T	1.00	Intron	—	Core	NO
100D	X	11,002,406	T → A	1.00	IG	—	Core	—
100D	X	11,107,069	A → T	1.00	IG	—	Core	—
100D	X	11,764,767	G → C	1.00	Exon	S → C	Core	NO
100D	X	12,370,069	C → T	1.00	Exon	R → K	Core	NO
100D	X	12,579,121	A → T	0.20	IG	—	Arm	—
100D	X	14,444,404	T → A	1.00	IG	—	Arm	—
100D	X	14,976,252	C → T	1.00	Exon	P → S	Arm	YES
100D	X	15,717,440	G → T	1.00	IG	—	Arm	—
100D	X	15,890,649	A → T	1.00	IG	—	Arm	—
100D	X	16,676,389	A → T	1.00	IG	—	Tip	—
100D	X	16,678,036	T → C	1.00	IG	—	Tip	—
100D	X	16,877,160	A → G	1.00	Exon	Synonymous	Tip	YES
100E	I	772,900	A → T	1.00	Intron	—	Arm	NO
100E	I	1,318,021	G → A	1.00	Intron	—	Arm	NO
100E	I	1,318,035	C → T	1.00	Intron	—	Arm	NO
100E	I	2,183,650	A → G	0.60	Intron	—	Arm	YES
100E	I	2,370,980	A → T	1.00	Intron	—	Arm	NO
100E	I	2,724,189	T → C	0.20	Intron	—	Arm	NO
100E	I	2,742,437	C → T	1.00	Exon/3'UTR	—	Arm	YES
100E	I	6,580,983	T → A	1.00	Intron	—	Core	YES
100E	I	6,826,717	T → G	1.00	Intron	—	Core	YES
100E	I	11,708,694	T → A	1.00	Exon	T → S	Arm	NO
100E	I	11,836,337	G → A	0.20	IG	—	Arm	—
100E	I	12,304,739	A → G	1.00	Exon	Synonymous	Arm	NO

100E	I	12,698,771	C → T	1.00	IG	—	Arm	—
100E	I	13,012,096	A → T	0.20	Intron	—	Arm	YES
100E	I	13,481,830	A → T	1.00	Intron	—	Arm	YES
100E	I	13,652,060	C → A	1.00	IG	—	Arm	—
100E	I	13,824,027	A → T	1.00	Intron	—	Arm	YES
100E	I	13,871,470	T → A	1.00	Intron	—	Arm	NO
100E	I	14,174,879	A → C	1.00	Intron	—	Arm	YES
100E	II	398,066	G → A	1.00	Exon	R → C	Arm	NO
100E	II	1,741,455	A → G	0.20	IG	—	Arm	—
100E	II	2,362,670	A → C	0.60	Intron	—	Arm	NO
100E	II	2,362,684	G → A	0.60	Intron	—	Arm	NO
100E	II	2,362,695	G → A	0.60	Intron	—	Arm	NO
100E	II	2,635,396	A → C	1.00	Exon	W → G	Arm	NO
100E	II	2,854,399	G → A	0.20	IG	—	Arm	—
100E	II	6,004,289	C → G	1.00	IG	—	Core	—
100E	II	9,969,476	T → C	1.00	Intron	—	Core	YES
100E	II	10,172,737	G → A	1.00	IG	—	Core	—
100E	II	14,080,326	A → T	0.60	Intron	—	Arm	NO
100E	II	14,117,953	C → A	1.00	Exon	S → I	Arm	NO
100E	II	15,144,190	A → G	1.00	Intron	—	Tip	NO
100E	III	314,314	C → T	1.00	IG	—	Tip	—
100E	III	2,624,570	T → A	1.00	Intron	—	Arm	YES
100E	III	3,943,457	T → A	1.00	IG	—	Core	—
100E	III	4,819,495	G → A	1.00	Exon	Synonymous	Core	NO
100E	III	6,438,659	G → A	1.00	Exon	G → E	Core	YES
100E	III	7,973,847	A → T	1.00	Exon	S → C	Core	YES
100E	III	10,569,525	A → T	1.00	Intron	—	Arm	YES
100E	III	10,627,090	G → A	1.00	Intron	—	Arm	YES
100E	III	12,317,714	C → A	1.00	IG	—	Arm	—
100E	III	13,430,547	C → A	1.00	Exon	S → *	Tip	NO
100E	IV	1,556,710	C → A	1.00	Intron	—	Arm	NO

100E	IV	3,700,729	A → G	1.00	IG	—	Arm	—
100E	IV	3,734,913	A → T	0.20	Intron	—	Arm	NO
100E	IV	5,484,660	T → A	1.00	Intron	—	Core	NO
100E	IV	11,420,763	G → A	1.00	Intron	—	Core	NO
100E	IV	12,800,502	C → G	1.00	IG	—	Core	—
100E	IV	13,256,814	A → T	1.00	Intron	—	Arm	NO
100E	IV	14,020,649	G → A	0.20	Intron	—	Arm	NO
100E	IV	14,099,462	A → T	1.00	IG	—	Arm	—
100E	IV	15,654,144	G → A	1.00	IG	—	Arm	—
100E	IV	16,667,331	C → G	0.60	Exon	Synonymous	Arm	NO
100E	V	612,951	T → A	1.00	Intron	—	Tip	NO
100E	V	1,724,864	T → A	1.00	Intron	—	Arm	NO
100E	V	1,845,286	C → A	1.00	IG	—	Arm	—
100E	V	3,511,368	A → T	1.00	Intron	—	Arm	NO
100E	V	4,562,086	T → A	0.20	IG	—	Arm	—
100E	V	5,311,421	A → T	1.00	IG	—	Arm	—
100E	V	6,947,751	C → A	1.00	IG	—	Core	—
100E	V	7,125,113	G → C	1.00	Intron	—	Core	NO
100E	V	7,640,787	G → A	0.20	IG	—	Core	—
100E	V	7,689,409	C → T	1.00	Intron	—	Core	NO
100E	V	11,240,104	C → G	1.00	Exon	P → R	Core	YES
100E	V	15,002,583	C → G	0.20	UTR	—	Core	YES
100E	V	15,510,622	T → A	1.00	Intron	—	Core	NO
100E	V	16,115,445	C → T	1.00	IG	—	Core	—
100E	V	16,130,402	G → A	0.20	Exon	T → I	Core	NO
100E	V	17,939,965	G → T	1.00	Intron	—	Arm	NO
100E	V	18,333,165	A → T	1.00	IG	—	Arm	—
100E	V	18,751,098	A → C	1.00	IG	—	Arm	—
100E	V	18,844,490	C → T	0.20	Intron	—	Arm	NO
100E	X	1,060,153	A → T	0.60	Intron	—	Arm	NO
100E	X	4,231,851	C → T	1.00	Intron	—	Arm	NO

100E	X	4,878,628	G → A	1.00		IG	—	Arm	—
100E	X	5,515,353	A → T	1.00		IG	—	Arm	—
100E	X	6,694,995	A → T	1.00	Intron	—	Core	NO	
100E	X	7,000,930	C → G	1.00	Exon	Synonymous	Core	NO	
100E	X	7,562,521	G → A	1.00		IG	—	Core	—
100E	X	9,399,590	G → C	1.00	Exon	C → S	Core	NO	
100E	X	11,757,333	C → A	0.20		IG	—	Core	—
100E	X	13,730,415	G → C	1.00	Intron	—	Arm	NO	
100E	X	14,398,197	T → G	0.20		IG	—	Arm	—
100E	X	15,378,057	G → C	0.20		IG	—	Arm	—
100E	X	17,430,147	A → T	0.20	Intron	—	Tip	NO	

**Table S2. List of nuclear small insertion and deletion mutations (indels) identified in the MA lines.** Column 1 represents the population size treatment ( $N=1$ , 10 or 100 individuals). Column 2 corresponds to the specific MA line within a particular population size treatment. Columns 3 and 4 provide the genomic location with regards to chromosome and nucleotide position of the spontaneous mutation, respectively. Column 5 specifies the mutation as a small insertion (Ins.) or deletion (Del.). Column 6 specifies the size (bp) of the insertion or deletion mutation. Insertion and deletion mutations are denoted by '+' and '−', respectively. Mutations up to 9 bp in length are shown with their exact sequence which was inserted or deleted. Column 7 represents the frequency of the mutation within the MA line. Column 8 specifies whether the mutation occurred in an exon, intron or intergenic (denoted as 'IG') region of the genome. Column 9 denotes the whether a small indels in an exonic region results in a frameshift or an in-frame change. Column 10 specifies the location of the small indel with respect to one of three recombination zones, namely cores, arms or tips. Column 11 specifies whether or not the indel in is a gene that exhibits germline expression.

Population Size	Line	Chromosome	Position	Mutation Type	Mutation	Frequency	Coding Type	Effect	Recombination Zone	Germline Expression
$N = 1$	1A	I	3,234,865	Ins.	+8 (GAAAAACAC)	1.00	Intron	−	Arm	YES
	1A	I	13,131,193	Del.	-5 (TGTGA)	1.00	Exon	Frameshift	Arm	NO
	1A	II	2,294,165	Ins.	+1 (T)	1.00	IG	−	Arm	−
	1A	II	10,414,019	Ins.	+3 (GGT)	1.00	IG	−	Core	−
	1A	III	77,504	Ins.	+1 (T)	1.00	Intron	−	Tip	NO
	1A	III	1,571,859	Del.	-36 (...)	1.00	Intron	−	Arm	YES
	1A	III	5,081,655	Del.	-12 (...)	1.00	IG	−	Core	−
	1A	III	11,833,974	Ins.	+1 (A)	1.00	Intron	−	Arm	YES
	1A	IV	1,390,116	Del.	-1 (A)	1.00	Intron	−	Arm	NO
	1A	IV	3,561,980	Ins.	+1 (T)	1.00	IG	−	Arm	−
	1A	IV	12,285,040	Del.	-6 (TGCCTT)	1.00	UTR	−	Core	YES
	1A	V	281,785	Del.	-1 (A)	1.00	IG	−	Tip	−
	1A	V	2,087,587	Ins.	+11 (...)	1.00	IG	−	Arm	−
	1A	V	6,170,340	Del.	-5 (ATCGG)	1.00	Exon	Frameshift	Core	NO
	1A	V	9,028,070	Del.	-1 (A)	1.00	IG	−	Core	−
	1A	V	14,130,709	Ins.	+1 (A)	1.00	Intron	−	Core	NO
	1A	V	14,580,539	Ins.	+1 (A)	1.00	IG	−	Core	−
	1A	V	15,053,225	Del.	-26 (...)	1.00	IG	−	Core	−
	1A	V	16,290,628	Del.	-1 (T)	1.00	IG	−	Core	−
	1A	V	18,617,568	Del.	-1 (A)	1.00	Intron	−	Arm	YES
	1A	X	2,847,062	Del.	-1 (T)	1.00	Intron	−	Arm	NO

1A	X	3,713,577	Del.	-6	(CAAATA)	1.00	IG	—	Arm	—	
1A	X	5,184,574	Ins.	+1	(A)	1.00	Intron	—	Arm	—	NO
1A	X	8,006,482	Del.	-7	(ACTCTAA)	1.00	IG	—	Core	—	
1A	X	15,785,711	Del.	-1	(G)	1.00	IG	—	Arm	—	
1B	I	2,903,365	Del.	-16	(...)	1.00	IG	—	Arm	—	
1B	II	1,818,364	Ins.	+1	(A)	1.00	Exon	Frameshift	Arm	—	NO
1B	II	3,275,286	Del.	-1	(G)	1.00	IG	—	Arm	—	
1B	II	3,473,160	Del.	-13	(...)	1.00	Exon	Frameshift	Arm	—	NO
1B	II	3,848,740	Ins.	+1	(A)	1.00	IG	—	Arm	—	
1B	II	3,924,823	Del.	-1	(T)	1.00	Intron	—	Arm	—	YES
1B	II	5,550,822	Del.	-1	(T)	1.00	IG	—	Core	—	
1B	II	13,850,053	Del.	-1	(T)	1.00	IG	—	Arm	—	
1B	II	14,589,041	Del.	-6	(TCGGGT)	1.00	Exon	In-Frame	Arm	—	NO
1B	III	170,064	Del.	-2	(TA)	1.00	IG	—	Tip	—	
1B	III	8,737,690	Del.	-4	(TGAA)	1.00	UTR	—	Core	—	YES
1B	III	11,452,966	Del.	-24	(...)	1.00	IG	—	Arm	—	
1B	III	12,499,401	Del.	-10	(...)	1.00	IG	—	Arm	—	
1B	IV	3,109,810	Del.	-1	(A)	1.00	Intron	—	Arm	—	YES
1B	IV	4,733,670	Del.	-4	(ATTT)	1.00	IG	—	Core	—	
1B	IV	11,169,327	Del.	-97	(...)	1.00	IG	—	Core	—	
1B	IV	16,635,304	Del.	-1	(C)	1.00	IG	—	Arm	—	
1B	IV	17,385,557	Del.	-1	(A)	1.00	Intron	—	Tip	—	NO
1B	V	1,881,836	Ins.	+1	(T)	1.00	Intron	—	Arm	—	YES
1B	V	6,692,526	Del.	-1	(T)	1.00	Intron	—	Core	—	NO
1B	V	11,132,045	Ins.	+1	(A)	1.00	IG	—	Core	—	
1B	V	16,567,897	Del.	-1	(A)	1.00	IG	—	Arm	—	
1B	V	16,909,742	Del.	-1	(A)	1.00	Exon	Frameshift	Arm	—	NO
1B	V	17,605,655	Del.	-4	(TATA)	1.00	Exon	Frameshift	Arm	—	
1B	V	19,952,387	Ins.	+1	(C)	1.00	Intron	—	Arm	—	NO
1B	V	20,229,380	Del.	-6	(GCCATT)	1.00	Intron	—	Arm	—	NO
1B	X	207,911	Del.	-1	(T)	1.00	IG	—	Tip	—	
1B	X	557,477	Ins.	+1	(A)	1.00	IG	—	Tip	—	
1B	X	1,467,078	Del.	-1	(T)	1.00	IG	—	Arm	—	
1B	X	4,571,376	Del.	-1	(A)	1.00	IG	—	Arm	—	

1B	X	7,227,236	Del.	-1 (T)	1.00	IG	—	Core	—
1B	X	11,128,953	Del.	-1 (C)	1.00	IG	—	Core	—
1B	X	11,331,698	Del.	-6 (GAGAAC)	1.00	Exon	In-Frame	Core	NO
1B	X	11,512,105	Del.	-1 (T)	1.00	Intron	—	Core	NO
1B	X	11,541,244	Del.	-70 (...)	1.00	Exon	Frameshift	Core	NO
1C	I	834,801	Del.	-1 (A)	1.00	UTR	—	Arm	NO
1C	I	2,929,380	Ins.	+1 (T)	1.00	UTR	—	Arm	YES
1C	I	3,282,866	Ins.	+1 (A)	1.00	IG	—	Arm	—
1C	I	13,347,368	Del.	-1 (T)	1.00	Intron	—	Arm	NO
1C	I	14,413,030	Ins.	+1 (T)	1.00	Intron	—	Arm	NO
1C	II	1,477,588	Del.	-11 (...)	1.00	IG	—	Arm	—
1C	II	2,046,659	Ins.	+1 (A)	1.00	IG	—	Arm	—
1C	II	4,268,833	Del.	-2 (CA)	1.00	IG	—	Arm	—
1C	II	7,182,808	Ins.	+3 (CTT)	1.00	IG	—	Core	—
1C	II	7,833,798	Del.	-6 (GTGGAC)	1.00	Intron	—	Core	NO
1C	III	2,817,610	Ins.	+1 (A)	1.00	IG	—	Arm	—
1C	III	3,883,371	Del.	-2 (AT)	1.00	Intron	—	Core	NO
1C	III	9,745,567	Del.	-1 (C)	1.00	IG	—	Core	—
1C	III	11,578,006	Del.	-1 (T)	1.00	Intron	—	Arm	YES
1C	IV	7,859,524	Del.	-1 (A)	1.00	IG	—	Core	—
1C	IV	9,406,368	Del.	-1 (T)	1.00	Intron	—	Core	NO
1C	IV	14,881,024	Del.	-25 (...)	1.00	Intron	—	Arm	YES
1C	V	7,321,058	Ins.	+1 (T)	1.00	IG	—	Core	—
1C	V	11,844,515	Del.	-1 (T)	1.00	IG	—	Core	—
1C	V	13,172,679	Ins.	+1 (A)	1.00	UTR	—	Core	NO
1C	V	15,329,595	Ins.	+1 (A)	1.00	Exon	Frameshift	Core	—
1C	V	19,548,762	Del.	-1 (T)	1.00	Intron	—	Arm	NO
1C	X	3,094,551	Del.	-7 (GGGGGGG)	1.00	Exon	Frameshift	Arm	—
1C	X	10,173,166	Del.	-2 (TA)	1.00	Exon	Frameshift	Core	NO
1D	I	1,003,823	Del.	-1 (A)	1.00	Intron	—	Arm	NO
1D	I	1,767,890	Del.	-1 (A)	1.00	UTR	—	Arm	NO
1D	I	2,984,637	Del.	-1 (T)	1.00	Intron	—	Arm	NO
1D	II	3,068,604	Ins.	+1 (G)	1.00	Intron	—	Arm	YES
1D	III	8,978,483	Del.	-1 (T)	1.00	Intron	—	Core	YES

1D	III	9,471,093	Ins.	+1 (T)	1.00	Intron	-	Core	YES
1D	III	13,150,495	Del.	-1 (T)	1.00	Intron	-	Arm	NO
1D	V	1,563,457	Del.	-1 (T)	1.00	IG	-	Arm	-
1D	V	6,021,188	Del.	-7 (CATCATC)	1.00	Intron	-	Core	YES
1D	V	7,737,659	Del.	-2 (GT)	1.00	IG	-	Core	-
1D	V	8,370,542	Del.	-1 (T)	1.00	IG	-	Core	-
1D	V	12,881,086	Del.	-1 (T)	1.00	Intron	-	Core	NO
1D	V	14,955,475	Del.	-1 (T)	1.00	Intron	-	Core	NO
1D	V	18,565,144	Del.	-1 (A)	1.00	IG	-	Arm	-
1D	X	7,439,370	Del.	-1 (T)	1.00	IG	-	Core	-
1E	I	14,891,476	Del.	-22 (...)	1.00	Intron	-	Tip	YES
1E	III	6,456,748	Ins.	+4 (ATCT)	1.00	Intron	-	Core	YES
1E	III	7,675,587	Del.	-1 (A)	1.00	IG	-	Core	-
1E	III	12,927,348	Del.	-1 (T)	1.00	Intron	-	Arm	NO
1E	IV	9,147,283	Del.	-1 (A)	1.00	IG	-	Core	-
1E	IV	10,427,042	Del.	-1 (T)	1.00	Intron	-	Core	NO
1E	IV	10,931,170	Del.	-51 (...)	1.00	Exon	In-Frame	Core	YES
1E	IV	13,347,590	Ins.	+1 (T)	1.00	IG	-	Arm	-
1E	IV	16,081,320	Del.	-1 (T)	1.00	IG	-	Arm	-
1E	V	15,607,309	Ins.	+8 (TTCCAGAA)	1.00	Intron	-	Core	NO
1E	V	16,315,210	Del.	-1 (A)	1.00	IG	-	Core	-
1E	V	16,955,697	Del.	-1 (T)	1.00	IG	-	Arm	-
1E	V	18,215,469	Del.	-13 (...)	1.00	Intron	-	Arm	NO
1E	V	19,954,703	Del.	-15 (...)	1.00	Intron	-	Arm	NO
1E	X	146,768	Del.	-1 (G)	1.00	Intron	-	Tip	YES
1E	X	1,240,433	Del.	-1 (T)	1.00	IG	-	Arm	-
1E	X	1,586,794	Del.	-1 (A)	1.00	Intron	-	Arm	NO
1E	X	11,080,846	Ins.	+1 (T)	1.00	Intron	-	Core	NO
1E	X	16,277,571	Del.	-1 (C)	1.00	Exon	Frameshift	Arm	NO
1F	I	14,293	Ins.	+1 (T)	1.00	Intron	-	Tip	NO
1F	I	4,266,206	Del.	-1 (T)	1.00	Intron	-	Core	YES
1F	I	9,266,637	Ins.	+1 (T)	1.00	Intron	-	Core	YES
1F	I	10,732,556	Ins.	+1 (T)	1.00	UTR	-	Core	YES
1F	I	11,090,124	Ins.	+3 (CTT)	1.00	Intron	-	Arm	YES

1F	I	11,761,047	Del.	-1 (T)		1.00	Intron	-	Arm	NO
1F	I	13,541,699	Del.	-1 (T)		1.00	Intron	-	Arm	YES
1F	II	2,913,797	Ins.	+1 (A)		1.00	UTR	-	Arm	YES
1F	II	8,095,050	Del.	-1 (T)		1.00	IG	-	Core	-
1F	II	8,368,293	Del.	101 (...)		1.00	Intron	-	Core	NO
1F	II	9,307,158	Del.	-1 (G)		1.00	Intron	-	Core	YES
1F	II	9,777,418	Del.	-10 (...)		1.00	IG	-	Core	-
1F	II	10,830,121	Del.	-62 (...)		1.00	Intron	-	Core	YES
1F	II	13,138,877	Del.	-1 (A)		1.00	IG	-	Arm	-
1F	II	14,835,775	Del.	-11 (...)		1.00	UTR	-	Tip	YES
1F	III	11,021,306	Del.	-1 (T)		1.00	Intron	-	Arm	NO
1F	III	11,250,674	Del.	-1 (T)		1.00	Intron	-	Arm	NO
1F	III	13,249,532	Del.	-1 (A)		1.00	Intron	-	Tip	NO
1F	IV	2,209,617	Ins.	+1 (T)		1.00	IG	-	Arm	-
1F	IV	2,955,169	Ins.	+1 (T)		1.00	IG	-	Arm	-
1F	IV	3,522,922	Del.	-1 (A)		1.00	Intron	-	Arm	YES
1F	IV	4,997,122	Del.	-1 (C)		1.00	Exon	Frameshift	Core	YES
1F	IV	5,640,586	Ins.	+1 (A)		1.00	IG	-	Core	-
1F	IV	6,061,211	Ins.	+2 (AG)		1.00	Intron	-	Core	NO
1F	IV	11,344,720	Del.	-1 (A)		1.00	Intron	-	Core	NO
1F	IV	13,388,847	Del.	-5 (TCTGA)		1.00	UTR	-	Arm	YES
1F	IV	15,616,097	Del.	-4 (GCTT)		1.00	Exon	Frameshift	Arm	NO
1F	V	1,698,840	Del.	-4 (CTGG)		1.00	Exon	Frameshift	Arm	NO
1F	V	3,863,114	Del.	-1 (G)		1.00	IG	-	Arm	-
1F	V	11,395,511	Del.	-40 (...)		1.00	Exon	Frameshift	Core	-
1F	V	12,462,171	Del.	-1 (A)		1.00	Intron	-	Core	NO
1F	V	13,164,743	Del.	-1 (T)		1.00	Intron	-	Core	NO
1F	V	15,830,111	Del.	-57 (...)		1.00	IG	-	Core	-
1F	X	995,770	Del.	-8 (AATTTGCC)		1.00	IG	-	Arm	-
1F	X	2,924,112	Del.	-1 (T)		1.00	IG	-	Arm	-
1F	X	10,176,895	Ins.	+1 (A)		1.00	IG	-	Core	-
1F	X	15,786,681	Ins.	+1 (A)		1.00	Intron	-	Arm	NO
1G	I	2,075,187	Del.	-1 (T)		1.00	Intron	-	Arm	YES
1G	I	11,476,608	Del.	-1 (T)		1.00	IG	-	Arm	-

1G	II	13,466,175	Ins.	+1 (T)	1.00	Intron	-	Arm	YES
1G	IV	1,798,691	Del.	-1 (A)	1.00	IG	-	Arm	-
1G	IV	5,108,402	Del.	-12 (...)	1.00	IG	-	Core	-
1G	IV	6,311,917	Del.	-7 (ATTTTTA)	1.00	Intron	-	Core	NO
1G	V	7,932,450	Del.	-1 (A)	1.00	Intron	-	Core	NO
1G	V	12,323,048	Ins.	+1 (A)	1.00	Intron	-	Core	NO
1G	V	14,070,886	Del.	-8 (AAAAACAA)	1.00	Intron	-	Core	NO
1G	X	6,864,072	Del.	-1 (A)	1.00	IG	-	Core	-
1G	X	13,025,657	Del.	-1 (T)	1.00	IG	-	Arm	-
1H	I	246,526	Ins.	+1 (T)	1.00	IG	-	Tip	-
1H	I	434,784	Ins.	+1 (T)	1.00	IG	-	Tip	-
1H	I	1,767,890	Ins.	+1 (A)	1.00	UTR	-	Arm	NO
1H	II	1,565,431	Del.	-1 (C)	1.00	IG	-	Arm	-
1H	II	6,191,005	Del.	-64 (...)	1.00	Intron	-	Core	NO
1H	III	5,686,550	Del.	-1 (G)	1.00	IG	-	Core	-
1H	III	12,863,142	Ins.	+1 (T)	1.00	IG	-	Arm	-
1H	IV	5,228,375	Del.	-11 (...)	1.00	IG	-	Core	-
1H	IV	8,256,919	Del.	-1 (A)	1.00	IG	-	Core	-
1H	IV	14,662,041	Ins.	+8 (TTTTTGAT)	1.00	Intron	-	Arm	NO
1H	V	13,540,413	Del.	-2 (AT)	1.00	IG	-	Core	-
1H	V	15,465,802	Del.	-2 (AA)	1.00	Intron	-	Core	NO
1H	V	19,377,998	Ins.	+1 (G)	1.00	Intron	-	Arm	NO
1H	V	19,957,835	Ins.	+6 (GTATAT)	1.00	Intron	-	Arm	NO
1H	X	3,087,986	Ins.	+1 (T)	1.00	IG	-	Arm	-
1H	X	3,336,211	Del.	-1 (T)	1.00	Intron	-	Arm	YES
1H	X	8,987,927	Del.	-1 (C)	1.00	IG	-	Core	-
1K	I	310,957	Del.	-5 (GAGAA)	1.00	UTR	-	Tip	NO
1K	I	14,321,882	Ins.	+2 (AT)	1.00	IG	-	Arm	-
1K	II	7,980,722	Ins.	+3 (GCA)	1.00	Intron	-	Core	NO
1K	II	10,297,669	Ins.	+1 (A)	1.00	Intron	-	Core	NO
1K	III	1,250,115	Del.	-5 (CTACC)	1.00	Intron	-	Arm	NO
1K	III	13,674,668	Del.	-1 (A)	1.00	Exon	Frameshift	Tip	YES
1K	IV	11,227,283	Del.	-1 (T)	1.00	Intron	-	Core	NO
1K	IV	15,000,719	Del.	-1 (T)	1.00	IG	-	Arm	-

1K	V	10,530,896	Ins.	+1 (A)		1.00	Intron	—	Core	NO
1K	X	4,872,733	Del.	-1 (T)		1.00	Intron	—	Arm	YES
1M	I	174,088	Ins.	+6 (TTCATT)		1.00	Exon	In-Frame	Tip	NO
1M	II	3,134,320	Del.	-1 (G)		1.00	Exon	Frameshift	Arm	—
1M	II	11,438,147	Del.	-1 (C)		1.00	Intron	—	Core	NO
1M	III	194,515	Ins.	+2 (GA)		1.00	Exon	Frameshift	Tip	NO
1M	III	3,354,017	Del.	-1 (T)		1.00	Intron	—	Arm	NO
1M	III	9,941,138	Del.	-34 (...)		1.00	Exon	Frameshift	Core	NO
1M	III	13,156,960	Del.	-1 (A)		1.00	Intron	—	Arm	YES
1M	IV	6,652,274	Ins.	+1 (A)		1.00	IG	—	Core	—
1M	IV	7,822,096	Ins.	+3 (TCT)		1.00	Exon	In-Frame	Core	NO
1M	V	4,517,950	Del.	-1 (T)		1.00	Intron	—	Arm	YES
1M	V	4,568,112	Del.	-10 (...)		1.00	Intron	—	Arm	NO
1M	V	5,520,866	Del.	-5 (CTCGA)		1.00	IG	—	Arm	—
1M	V	8,683,358	Del.	-1 (A)		1.00	Intron	—	Core	NO
1M	V	19,055,517	Del.	-1 (T)		1.00	IG	—	Arm	—
1M	X	966,354	Del.	-1 (A)		1.00	IG	—	Arm	—
1M	X	7,133,245	Del.	-31 (...)		1.00	Intron	—	Core	NO
1M	X	16,032,105	Ins.	+1 (A)		1.00	Intron	—	Arm	NO
1M	X	16,965,757	Del.	-1 (A)		1.00	Intron	—	Tip	YES
1N	I	1,271,991	Del.	-1 (T)		1.00	IG	—	Arm	—
1N	I	8,040,693	Del.	-1 (A)		1.00	IG	—	Core	—
1N	I	8,559,860	Ins.	+1 (T)		1.00	Intron	—	Core	NO
1N	I	10,227,466	Del.	-2 (GT)		1.00	UTR	—	Core	YES
1N	I	11,271,258	Del.	-1 (G)		1.00	IG	—	Arm	—
1N	I	12,485,361	Del.	-1 (A)		1.00	Intron	—	Arm	YES
1N	II	2,434,596	Del.	-1 (T)		1.00	IG	—	Arm	—
1N	II	2,920,181	Del.	-2 (GT)		1.00	Exon	Frameshift	Arm	YES
1N	II	10,034,966	Del.	-16 (...)		1.00	Intron	—	Core	YES
1N	II	14,063,625	Del.	-1 (T)		1.00	Intron	—	Arm	NO
1N	III	86,744	Del.	-6 (AAAATT)		1.00	UTR	—	Tip	YES
1N	III	999,375	Ins.	+1 (A)		1.00	Intron	—	Arm	YES
1N	III	3,282,772	Del.	-1 (T)		1.00	Intron	—	Arm	NO
1N	III	5,240,242	Ins.	+1 (C)		1.00	IG	—	Core	—

1N	III	11,931,805	Del.	-9	(TAGGTAATA)	1.00	Intron	-	Arm	NO
1N	IV	734,871	Del.	-1	(G)	1.00	IG	-	Arm	-
1N	IV	1,766,863	Ins.	+1	(T)	1.00	IG	-	Arm	-
1N	IV	4,113,380	Ins.	+1	(A)	1.00	IG	-	Core	-
1N	IV	6,014,680	Del.	-1	(T)	1.00	Exon	Frameshift	Core	-
1N	IV	6,517,299	Del.	-12	(...)	1.00	IG	-	Core	-
1N	IV	7,386,674	Del.	-13	(...)	1.00	Intron	-	Core	YES
1N	V	5,365,109	Del.	-1	(A)	1.00	IG	-	Arm	-
1N	V	8,189,633	Ins.	+1	(A)	1.00	Exon	Frameshift	Core	NO
1N	V	9,717,616	Del.	-1	(A)	1.00	Intron	-	Core	NO
1N	V	14,118,207	Del.	-1	(A)	1.00	Intron	-	Core	NO
1N	V	19,148,366	Del.	-38	(...)	1.00	Intron	-	Arm	NO
1N	V	20,868,432	Del.	-1	(A)	1.00	IG	-	Tip	-
1N	X	2,451,894	Del.	-1	(C)	1.00	IG	-	Arm	-
1N	X	4,658,747	Del.	-95	(...)	1.00	Exon	Frameshift	Arm	NO
1N	X	6,225,634	Ins.	+1	(A)	1.00	IG	-	Core	-
1N	X	14,371,230	Del.	-2	(AG)	1.00	IG	-	Arm	-
1O	I	3,567,212	Ins.	+1	(T)	1.00	Intron	-	Arm	NO
1O	I	12,157,444	Del.	-5	(CAAAA)	1.00	Exon	Frameshift	Arm	NO
1O	II	1,401,886	Del.	-77	(...)	1.00	Intron	-	Arm	NO
1O	II	3,319,183	Del.	-5	(TATTA)	1.00	IG	-	Arm	-
1O	II	3,792,020	Del.	-3	(GAT)	1.00	Exon	In-Frame	Arm	NO
1O	II	4,802,232	Del.	-1	(T)	1.00	Intron	-	Arm	NO
1O	II	10,363,886	Del.	-1	(T)	1.00	Intron	-	Core	NO
1O	III	5,416,065	Del.	-3	(TTT)	1.00	IG	-	Core	-
1O	III	8,064,202	Del.	-1	(T)	1.00	IG	-	Core	-
1O	III	13,313,315	Ins.	+1	(T)	1.00	UTR	-	Tip	NO
1O	IV	3,053,562	Ins.	+1	(A)	1.00	IG	-	Arm	-
1O	IV	3,732,130	Del.	-1	(T)	1.00	Intron	-	Arm	NO
1O	IV	9,191,383	Del.	-4	(AGCC)	1.00	IG	-	Core	-
1O	IV	9,890,367	Del.	-1	(A)	1.00	IG	-	Core	-
1O	V	5,105,643	Ins.	+1	(T)	1.00	IG	-	Arm	-
1O	V	18,087,042	Del.	-3	(TCA)	1.00	IG	-	Arm	-
1O	X	5,308,100	Del.	-1	(T)	1.00	Intron	-	Arm	NO

1O	X	7,375,848	Del.	-1 (A)	1.00	IG	-	Core	-
1O	X	16,273,030	Ins.	+1 (T)	1.00	IG	-	Arm	-
1P	I	293,878	Del.	-1 (T)	1.00	Intron	-	Tip	YES
1P	I	1,977,421	Del.	-15 (...)	1.00	IG	-	Arm	-
1P	I	13,102,075	Del.	-1 (T)	1.00	Intron	-	Arm	NO
1P	II	1,506,135	Del.	-9 (TTTTTTTGA)	1.00	Intron	-	Arm	YES
1P	II	3,523,516	Ins.	+1 (T)	1.00	Intron	-	Arm	NO
1P	II	3,960,803	Del.	-1 (T)	1.00	Intron	-	Arm	NO
1P	II	13,544,406	Ins.	+1 (A)	1.00	Intron	-	Arm	NO
1P	III	2,474,782	Del.	-23 (...)	1.00	Intron	-	Arm	YES
1P	III	10,955,403	Del.	-1 (T)	1.00	IG	-	Arm	-
1P	III	12,414,114	Ins.	+1 (A)	1.00	Intron	-	Arm	NO
1P	IV	3,788,909	Del.	-1 (C)	1.00	Intron	-	Arm	YES
1P	IV	5,654,995	Del.	-1 (T)	1.00	UTR	-	Core	NO
1P	IV	14,583,804	Ins.	+1 (A)	1.00	Exon	Frameshift	Arm	-
1P	V	15,845,590	Del.	-4 (TTT)	1.00	IG	-	Core	-
1P	X	1,711,407	Ins.	+1 (T)	1.00	IG	-	Arm	-
1P	X	6,830,848	Ins.	+1 (T)	1.00	IG	-	Core	-
1P	X	7,177,019	Ins.	+9 (ACTAGACAG)	1.00	Exon	In-Frame	Core	-
1P	X	11,338,180	Del.	-6 (ATTAAT)	1.00	UTR	-	Core	NO
1P	X	16,521,807	Ins.	+1 (A)	1.00	Intron	-	Tip	NO
1Q	I	837,551	Del.	-1 (T)	1.00	IG	-	Arm	-
1Q	I	1,715,433	Del.	-1 (T)	1.00	UTR	-	Arm	NO
1Q	I	1,986,543	Del.	-1 (A)	1.00	IG	-	Arm	-
1Q	II	1,417,071	Del.	-1 (A)	1.00	Intron	-	Arm	NO
1Q	II	7,780,452	Del.	-1 (A)	1.00	Intron	-	Core	NO
1Q	II	8,267,682	Del.	-4 (TAAA)	1.00	Intron	-	Core	NO
1Q	II	11,527,577	Del.	-1 (G)	1.00	Intron	-	Core	YES
1Q	II	12,868,928	Del.	-1 (T)	1.00	Intron	-	Arm	YES
1Q	II	13,313,313	Del.	-1 (T)	1.00	Intron	-	Arm	YES
1Q	II	13,956,496	Del.	-2 (TT)	1.00	Intron	-	Arm	NO
1Q	III	310,657	Del.	-1 (A)	1.00	Intron	-	Tip	YES
1Q	III	3,903,549	Del.	-3 (CTC)	1.00	Exon	In-Frame	Core	YES
1Q	III	3,927,528	Ins.	+1 (C)	1.00	IG	-	Core	-

1Q	III	11,686,062	Ins.	+2 (AA)	1.00	Intron	—	Arm	NO
1Q	V	3,401,577	Del.	-1 (T)	1.00	IG	—	Arm	—
1Q	V	3,746,402	Del.	-1 (A)	1.00	Intron	—	Arm	YES
1Q	V	8,569,576	Del.	-2 (TC)	1.00	Exon	Frameshift	Core	YES
1Q	V	11,849,079	Del.	-1 (A)	1.00	Intron	—	Core	YES
1Q	V	16,241,182	Del.	-1 (A)	1.00	IG	—	Core	—
1Q	V	19,567,381	Del.	-1 (T)	1.00	Intron	—	Arm	NO
1Q	X	2,185,657	Del.	-8 (TTAGAAAA)	1.00	Intron	—	Arm	NO
1Q	X	2,871,261	Ins.	+1 (G)	1.00	IG	—	Arm	—
1Q	X	4,801,358	Del.	-1 (G)	1.00	IG	—	Arm	—
1Q	X	13,858,163	Del.	-1 (A)	1.00	IG	—	Arm	—
1Q	X	15,237,746	Ins.	+1 (A)	1.00	Intron	—	Arm	YES
1R	I	85,913	Del.	-1 (T)	1.00	Intron	—	Tip	NO
1R	I	860,287	Ins.	+15 (...)	1.00	Intron	—	Arm	NO
1R	I	6,008,848	Del.	-4 (CTTT)	1.00	Exon	Frameshift	Core	YES
1R	I	9,144,226	Del.	-1 (T)	1.00	Intron	—	Core	NO
1R	I	12,968,326	Del.	-1 (A)	1.00	IG	—	Arm	—
1R	I	13,002,389	Del.	-1 (T)	1.00	Intron	—	Arm	YES
1R	II	2,443,070	Del.	-1 (T)	1.00	Exon	Frameshift	Arm	—
1R	II	6,323,814	Del.	-1 (T)	1.00	IG	—	Core	—
1R	II	11,539,324	Del.	-16 (...)	1.00	Exon	Frameshift	Core	YES
1R	II	12,004,683	Del.	-1 (A)	1.00	Intron	—	Core	YES
1R	III	7,623,291	Ins.	+1 (T)	1.00	IG	—	Core	—
1R	III	11,100,134	Del.	-1 (A)	1.00	IG	—	Arm	—
1R	III	12,663,309	Ins.	+1 (A)	1.00	IG	—	Arm	—
1R	IV	9,330,942	Del.	-1 (T)	1.00	IG	—	Core	—
1R	IV	15,996,160	Del.	-1 (A)	1.00	IG	—	Arm	—
1R	IV	16,792,553	Del.	-3 (ATC)	1.00	IG	—	Tip	—
1R	X	12,578,179	Del.	-17 (...)	1.00	IG	—	Arm	—
1R	X	13,653,821	Del.	-1 (T)	1.00	IG	—	Arm	—
1R	X	16,185,942	Ins.	+1 (A)	1.00	IG	—	Arm	—
1S	I	1,986,187	Del.	-3 (TGG)	1.00	IG	—	Arm	—
1S	I	3,737,082	Del.	-3 (GAT)	1.00	Intron	—	Arm	YES
1S	I	13,564,372	Del.	-1 (A)	1.00	IG	—	Arm	—

1S	I	14,255,049	Del.	-1 (A)	1.00	Intron	-	Arm	NO	
1S	III	640,314	Ins.	+9 (AAAAATGAG)	1.00	IG	-	Arm	-	
1S	V	3,114,311	Del.	-1 (A)	1.00	IG	-	Arm	-	
1S	V	4,761,197	Del.	-1 (G)	1.00	Intron	-	Arm	NO	
1S	V	12,952,143	Del.	-13 (...)	1.00	IG	-	Core	-	
1S	V	13,575,032	Del.	-2 (TC)	1.00	IG	-	Core	-	
1S	V	13,853,790	Del.	-1 (T)	1.00	IG	-	Core	-	
1S	V	17,995,491	Del.	-2 (AC)	1.00	UTR	-	Arm	NO	
1S	X	8,987,927	Del.	-1 (C)	1.00	IG	-	Core	-	
1S	X	9,760,289	Del.	-2 (TG)	1.00	Intron	-	Core	NO	
1S	X	13,211,112	Del.	-1 (T)	1.00	IG	-	Arm	-	
1T	I	2,531,378	Del.	-1 (T)	1.00	IG	-	Arm	-	
1T	I	11,837,463	Del.	-7 (GCACGGA)	1.00	Intron	-	Arm	NO	
1T	II	682,890	Del.	-5 (AATAA)	1.00	Intron	-	Arm	NO	
1T	II	2,303,550	Del.	-2 (AA)	1.00	IG	-	Arm	-	
1T	III	3,831,265	Ins.	+1 (A)	1.00	IG	-	Core	-	
1T	III	6,148,688	Ins.	+1 (T)	1.00	Intron	-	Core	NO	
1T	III	11,924,951	Del.	-6 (ATAAGT)	1.00	Intron	-	Arm	YES	
1T	III	13,373,013	Del.	-1 (A)	1.00	Intron	-	Tip	YES	
1T	IV	2,927,901	Del.	-1 (T)	1.00	Intron	-	Arm	YES	
1T	IV	4,724,937	Del.	-14 (...)	1.00	Exon	Frameshift	Core	YES	
1T	IV	4,987,702	Del.	-1 (A)	1.00	Exon	Frameshift	Core	NO	
1T	IV	6,217,424	Del.	-1 (A)	1.00	UTR	-	Core	NO	
1T	V	4,995,820	Del.	-16 (...)	1.00	IG	-	Arm	-	
1T	V	12,494,018	Del.	-1 (T)	1.00	Intron	-	Core	YES	
1T	V	18,766,672	Ins.	+1 (G)	1.00	IG	-	Arm	-	
1T	X	2,553,515	Ins.	+1 (G)	1.00	IG	-	Arm	-	
1T	X	4,580,620	Del.	-1 (C)	1.00	Intron	-	Arm	NO	
1T	X	5,787,364	Del.	-1 (T)	1.00	IG	-	Arm	-	
1T	X	10,762,449	Del.	-1 (T)	1.00	IG	-	Core	-	
N = 10	10A	I	2,121,550	Del.	-1 (T)	1.00	Intron	-	Arm	YES
	10A	I	6,829,661	Del.	-1 (A)	1.00	Intron	-	Core	YES
	10A	I	11,333,458	Del.	-1 (T)	1.00	IG	-	Arm	-
	10A	II	9,464,784	Del.	-18 (...)	1.00	Exon	In-Frame	Core	NO

10A	II	10,640,011	Ins.	+1 (G)		1.00	Intron	-	Core	NO
10A	II	12,223,019	Ins.	+1 (A)		1.00	IG	-	Arm	-
10A	III	1,438,766	Del.	-1 (T)		1.00	IG	-	Arm	-
10A	III	4,157,671	Del.	-1 (T)		1.00	IG	-	Core	-
10A	III	10,784,796	Del.	-1 (A)		1.00	Intron	-	Arm	NO
10A	IV	549,992	Del.	-1 (A)		1.00	Intron	-	Tip	NO
10A	IV	3,569,764	Del.	-1 (T)		1.00	Intron	-	Arm	NO
10A	IV	7,384,798	Del.	-1 (A)		1.00	UTR	-	Core	YES
10A	IV	8,296,136	Del.	-1 (T)		1.00	Intron	-	Core	NO
10A	IV	16,149,117	Ins.	+1 (T)		1.00	IG	-	Arm	-
10A	V	8,398,050	Del.	-1 (T)		1.00	IG	-	Core	-
10A	V	15,652,950	Del.	-9 (CGTTTCAG)		1.00	Exon	In-Frame	Core	YES
10A	X	1,912,687	Del.	-2 (GG)		1.00	Exon	Frameshift	Arm	YES
10B	I	3,232,308	Del.	-1 (A)		1.00	Intron	-	Arm	YES
10B	I	3,241,121	Del.	-6 (AGTTAG)		0.25	Intron	-	Arm	YES
10B	I	3,569,028	Del.	-1 (T)		1.00	Intron	-	Arm	NO
10B	I	4,294,788	Del.	-1 (G)		1.00	IG	-	Core	-
10B	I	6,031,697	Ins.	+1 (A)		1.00	Intron	-	Core	YES
10B	II	4,153,877	Del.	-1 (T)		1.00	IG	-	Arm	-
10B	II	5,371,430	Del.	-1 (T)		1.00	Intron	-	Core	YES
10B	II	6,273,948	Ins.	+1 (T)		1.00	UTR	-	Core	YES
10B	II	13,888,441	Del.	-11 (...)		1.00	IG	-	Arm	-
10B	II	15,111,049	Del.	-1 (T)		1.00	Intron	-	Tip	YES
10B	III	3,659,713	Del.	-1 (T)		1.00	Intron	-	Arm	YES
10B	III	5,288,134	Del.	-2 (TT)		1.00	IG	-	Core	-
10B	III	6,146,255	Del.	-1 (T)		1.00	Intron	-	Core	YES
10B	III	6,246,351	Del.	-1 (T)		1.00	Intron	-	Core	NO
10B	III	12,217,535	Del.	-12 (...)		1.00	Intron	-	Arm	YES
10B	III	13,177,193	Del.	-1 (T)		1.00	IG	-	Arm	-
10B	IV	5,835,264	Ins.	+3 (TAC)		1.00	IG	-	Core	-
10B	IV	9,633,816	Del.	-1 (T)		1.00	Intron	-	Core	YES
10B	IV	16,847,291	Del.	-1 (T)		1.00	IG	-	Tip	-
10B	V	13,481,597	Del.	-1 (A)		1.00	IG	-	Core	-
10B	V	14,574,716	Del.	-1 (T)		1.00	Intron	-	Core	NO

10B	V	15,560,748	Del.	-1 (G)	0.75	IG	—	Core	—
10B	V	18,792,852	Ins.	+1 (G)	1.00	Intron	—	Arm	NO
10B	V	19,545,497	Del.	-10 (...)	1.00	Exon	Frameshift	Arm	NO
10B	V	20,301,604	Del.	-1 (C)	0.25	IG	—	Arm	—
10B	X	1,600,068	Del.	-1 (T)	1.00	IG	—	Arm	—
10B	X	16,817,384	Del.	-2 (TG)	1.00	Intron	—	Tip	NO
10C	I	7,080,267	Ins.	+1 (A)	1.00	UTR	—	Core	YES
10C	II	3,960,180	Ins.	+1 (T)	1.00	Intron	—	Arm	NO
10C	III	1,407,852	Del.	101 (...)	1.00	Intron	—	Arm	NO
10C	III	5,002,646	Del.	-10 (...)	1.00	IG	—	Core	—
10C	IV	2,276,191	Del.	-1 (A)	1.00	UTR	—	Arm	NO
10C	IV	2,507,282	Ins.	+1 (T)	1.00	Intron	—	Arm	NO
10C	IV	13,498,465	Ins.	+1 (T)	1.00	Intron	—	Arm	YES
10C	V	2,782,054	Ins.	+1 (A)	1.00	UTR	—	Arm	NO
10C	V	6,139,690	Del.	-1 (T)	1.00	Intron	—	Core	NO
10C	V	11,121,317	Del.	-1 (T)	1.00	Intron	—	Core	YES
10C	X	608,675	Del.	-1 (C)	0.25	IG	—	Arm	—
10C	X	740,313	Del.	-7 (AATTCGC)	1.00	Exon	Frameshift	Arm	—
10C	X	14,000,000	Del.	-2 (TA)	1.00	IG	—	Arm	—
10C	X	14,034,598	Del.	-7 (GGCCACA)	1.00	Exon	Frameshift	Arm	NO
10C	X	14,096,867	Del.	-1 (G)	1.00	Intron	—	Arm	YES
10C	X	17,515,422	Ins.	+1 (C)	1.00	IG	—	Tip	—
10D	I	733,648	Del.	-4 (AGGT)	0.25	Intron	—	Arm	NO
10D	I	10,687,126	Del.	-1 (A)	1.00	IG	—	Core	—
10D	I	12,007,929	Del.	-3 (GCG)	1.00	Exon	In-Frame	Arm	—
10D	I	12,829,083	Ins.	+9 (TTTATTAA)	1.00	Intron	—	Arm	NO
10D	I	14,048,647	Del.	-1 (G)	1.00	Intron	—	Arm	YES
10D	II	2,546,527	Del.	-1 (T)	1.00	Intron	—	Arm	NO
10D	II	4,098,330	Ins.	+1 (T)	1.00	IG	—	Arm	—
10D	II	4,343,359	Del.	-1 (G)	1.00	Exon	Frameshift	Arm	YES
10D	II	4,813,190	Del.	-1 (A)	1.00	Exon	Frameshift	Arm	—
10D	II	12,448,266	Del.	-1 (T)	1.00	IG	—	Arm	—
10D	II	13,239,210	Del.	-1 (T)	1.00	IG	—	Arm	—
10D	III	4,605,488	Del.	-1 (A)	1.00	Intron	—	Core	YES

10D	III	8,770,055	Ins.	+1 (A)	1.00	Intron	—	Core	YES
10D	III	8,945,369	Del.	-3 (CAA)	1.00	Intron	—	Core	NO
10D	III	9,825,911	Del.	-1 (T)	1.00	IG	—	Core	—
10D	IV	5,489,184	Del.	-1 (A)	1.00	Intron	—	Core	NO
10D	IV	10,315,695	Del.	-1 (A)	1.00	IG	—	Core	—
10D	V	4,174,729	Del.	-2 (GA)	1.00	Intron	—	Arm	YES
10D	V	11,395,511	Del.	-48 (...)	1.00	Exon	In-Frame	Core	—
10D	V	16,385,894	Del.	-5 (AACTC)	1.00	Exon	Frameshift	Core	—
10D	X	3,351,677	Del.	-1 (C)	1.00	IG	—	Arm	—
10D	X	4,484,106	Del.	-1 (A)	1.00	IG	—	Arm	—
10D	X	11,167,083	Del.	-6 (TCACTA)	1.00	Intron	—	Core	NO
10D	X	15,725,665	Ins.	+1 (C)	1.00	IG	—	Arm	—
10E	I	10,602,355	Del.	-1 (A)	1.00	Intron	—	Core	YES
10E	II	1,115,437	Del.	-3 (ACT)	1.00	IG	—	Arm	—
10E	II	1,381,863	Del.	-3 (GTC)	1.00	Exon	In-Frame	Arm	NO
10E	II	4,540,755	Del.	-2 (AG)	1.00	IG	—	Arm	—
10E	II	13,162,677	Del.	-68 (...)	1.00	Intron	—	Arm	NO
10E	III	988,607	Del.	-1 (A)	0.25	IG	—	Arm	—
10E	III	11,057,646	Del.	-1 (A)	1.00	Intron	—	Arm	YES
10E	III	12,344,077	Del.	-1 (A)	1.00	Intron	—	Arm	NO
10E	III	13,208,000	Del.	-1 (A)	0.25	IG	—	Arm	—
10E	III	13,731,392	Del.	-1 (A)	0.25	Intron	—	Tip	NO
10E	IV	130,425	Ins.	+1 (T)	1.00	IG	—	Tip	—
10E	V	992,903	Ins.	+1 (C)	1.00	Intron	—	Arm	NO
10E	V	1,647,896	Del.	-36 (...)	0.75	IG	—	Arm	—
10E	V	7,437,137	Del.	-1 (A)	1.00	IG	—	Core	—
10E	V	8,152,098	Del.	-1 (A)	0.25	Exon	Frameshift	Core	—
10E	V	15,631,192	Del.	-1 (A)	1.00	Exon	Frameshift	Core	—
10E	V	18,137,800	Del.	-1 (A)	1.00	IG	—	Arm	—
10E	V	18,922,737	Del.	-1 (T)	0.75	Intron	—	Arm	NO
10E	X	437,647	Del.	-1 (A)	1.00	IG	—	Tip	—
10E	X	2,104,347	Ins.	+1 (G)	1.00	Exon	Frameshift	Arm	—
10E	X	6,023,141	Del.	-2 (GT)	1.00	IG	—	Arm	—
10E	X	11,214,171	Del.	-60 (...)	1.00	Exon	In-Frame	Core	NO

10F	I	729,638	Del.	-1 (A)	1.00	Intron	—	Arm	YES
10F	I	5,494,534	Ins.	+1 (T)	1.00	IG	—	Core	—
10F	I	9,213,293	Ins.	+1 (A)	1.00	Intron	—	Core	NO
10F	I	10,954,579	Del.	-1 (A)	1.00	IG	—	Core	—
10F	II	4,041,619	Del.	-1 (G)	1.00	Intron	—	Arm	NO
10F	II	5,917,159	Del.	-1 (T)	1.00	IG	—	Core	—
10F	II	9,947,142	Del.	-1 (C)	1.00	IG	—	Core	—
10F	II	12,071,256	Del.	-1 (T)	1.00	IG	—	Arm	—
10F	III	1,755,735	Del.	-7 (GATAATT)	1.00	IG	—	Arm	—
10F	III	6,231,994	Del.	-4 (TAAA)	1.00	IG	—	Core	—
10F	III	6,429,826	Del.	-27 (...)	1.00	Intron	—	Core	NO
10F	III	8,925,328	Del.	-1 (A)	0.25	Intron	—	Core	NO
10F	III	9,110,783	Del.	-1 (A)	1.00	IG	—	Core	—
10F	III	10,711,195	Del.	-3 (TGT)	1.00	Intron	—	Arm	YES
10F	III	10,989,794	Del.	-4 (TGCC)	1.00	Intron	—	Arm	NO
10F	IV	2,067,075	Del.	-1 (T)	1.00	Intron	—	Arm	NO
10F	IV	3,229,963	Ins.	+1 (T)	1.00	Intron	—	Arm	NO
10F	V	3,044,974	Del.	-28 (...)	1.00	Exon	Frameshift	Arm	—
10F	V	3,679,995	Del.	-42 (...)	1.00	IG	—	Arm	—
10F	V	10,975,930	Del.	-6 (GAAGTT)	1.00	Exon	In-Frame	Core	NO
10F	V	17,258,204	Del.	-5 (ACGTA)	1.00	IG	—	Arm	—
10F	V	19,996,061	Del.	-1 (A)	1.00	UTR	—	Arm	NO
10F	X	4,716,015	Del.	-1 (T)	1.00	IG	—	Arm	—
10F	X	4,961,157	Ins.	+1 (G)	1.00	Intron	—	Arm	YES
10F	X	6,076,432	Ins.	+1 (A)	1.00	Intron	—	Arm	NO
10F	X	8,145,831	Ins.	+1 (T)	1.00	IG	—	Core	—
10F	X	11,744,692	Del.	-1 (C)	1.00	IG	—	Core	—
10G	I	4,532,212	Del.	-1 (T)	1.00	Intron	—	Core	YES
10G	I	5,149,128	Del.	-1 (G)	0.25	UTR	—	Core	NO
10G	I	8,617,868	Ins.	+1 (T)	1.00	Intron	—	Core	NO
10G	I	10,228,815	Del.	-3 (GAG)	1.00	Intron	—	Core	YES
10G	I	10,407,962	Del.	-1 (T)	1.00	IG	—	Core	—
10G	I	13,560,156	Ins.	+1 (T)	1.00	IG	—	Arm	—
10G	II	5,627,943	Del.	-15 (...)	1.00	Intron	—	Core	NO

10G	II	7,598,324	Del.	-1 (A)	1.00	Intron	-	Core	YES
10G	II	9,868,187	Del.	-3 (TCA)	1.00	Exon	In-Frame	Core	NO
10G	II	10,884,965	Del.	-1 (A)	1.00	Intron	-	Core	NO
10G	II	13,244,482	Del.	-1 (T)	1.00	IG	-	Arm	-
10G	III	220,930	Del.	-1 (T)	1.00	IG	-	Tip	-
10G	III	3,154,746	Ins.	+13 (...)	0.25	IG	-	Arm	-
10G	III	10,589,434	Ins.	+1 (A)	1.00	IG	-	Arm	-
10G	III	10,617,158	Del.	-1 (A)	1.00	Intron	-	Arm	YES
10G	III	11,858,211	Ins.	+1 (C)	0.75	Intron	-	Arm	NO
10G	III	12,560,467	Del.	-1 (C)	1.00	Intron	-	Arm	NO
10G	III	12,891,841	Del.	-3 (AAT)	1.00	IG	-	Arm	-
10G	III	13,671,151	Del.	-18 (...)	1.00	IG	-	Tip	-
10G	V	525,916	Del.	-10 (...)	1.00	Exon	Frameshift	Tip	-
10G	V	1,220,828	Del.	-1 (A)	1.00	IG	-	Arm	-
10G	V	2,929,780	Del.	-1 (A)	1.00	IG	-	Arm	-
10G	V	3,760,948	Del.	-8 (TTTGCCGG)	1.00	IG	-	Arm	-
10G	V	16,362,279	Ins.	+1 (A)	1.00	Intron	-	Core	NO
10G	V	18,471,652	Ins.	+1 (A)	1.00	IG	-	Arm	-
10G	V	18,831,052	Del.	-3 (TTG)	1.00	Intron	-	Arm	NO
10G	X	11,128,953	Del.	-1 (C)	1.00	IG	-	Core	-
10G	X	12,441,854	Del.	-18 (...)	1.00	Intron	-	Core	NO
10H	I	291,635	Ins.	+1 (T)	1.00	Intron	-	Tip	YES
10H	I	3,803,977	Del.	-1 (T)	1.00	Intron	-	Arm	YES
10H	I	12,491,883	Del.	-2 (CT)	1.00	Intron	-	Arm	YES
10H	I	12,572,143	Del.	-1 (C)	1.00	Intron	-	Arm	NO
10H	I	14,014,030	Ins.	+1 (A)	0.66	IG	-	Arm	-
10H	II	1,455,644	Del.	-34 (...)	1.00	IG	-	Arm	-
10H	II	7,823,307	Del.	-1 (T)	1.00	IG	-	Core	-
10H	III	9,672,412	Del.	-1 (A)	1.00	IG	-	Core	-
10H	III	13,246,139	Ins.	+1 (T)	1.00	IG	-	Tip	-
10H	IV	6,336,695	Ins.	+1 (T)	1.00	IG	-	Core	-
10H	IV	16,103,396	Del.	-1 (A)	1.00	IG	-	Arm	-
10H	V	5,316,417	Ins.	+5 (ATACA)	1.00	Intron	-	Arm	NO
10H	V	9,540,485	Ins.	+1 (A)	1.00	Intron	-	Core	YES

10H	V	17,320,602	Del.	-1 (T)		1.00	IG	-	Arm	-	
10H	X	3,812,903	Del.	-1 (A)		1.00	Exon	Frameshift	Arm	NO	
10H	X	4,689,081	Ins.	+1 (T)		1.00	Intron	-	Arm	NO	
10H	X	9,408,124	Del.	-1 (T)		1.00	Intron	-	Core	NO	
10H	X	12,935,647	Ins.	+1 (A)		1.00	IG	-	Arm	-	
10H	X	13,187,552	Del.	-1 (T)		1.00	Intron	-	Arm	NO	
10I	I	406,296	Ins.	+1 (C)		0.50	Intron	-	Tip	YES	
10I	I	2,154,577	Del.	-1 (A)		1.00	IG	-	Arm	-	
10I	I	2,370,448	Ins.	+1 (T)		1.00	Intron	-	Arm	NO	
10I	I	3,249,336	Ins.	+1 (C)		1.00	Intron	-	Arm	YES	
10I	I	11,562,984	Del.	-70 (...)		1.00	Intron	-	Arm	NO	
10I	I	13,569,174	Del.	-1 (A)		1.00	Intron	-	Arm	NO	
10I	II	452,379	Del.	-30 (...)		1.00	Intron	-	Arm	NO	
10I	II	2,672,216	Ins.	+2 (AA)		1.00	IG	-	Arm	-	
10I	II	4,265,204	Del.	-1 (T)		1.00	IG	-	Arm	-	
10I	II	11,487,640	Ins.	+1 (A)		1.00	IG	-	Core	-	
10I	III	1,895,217	Ins.	+8 (AGTACCTC)		1.00	Intron	-	Arm	NO	
10I	III	13,704,940	Del.	-1 (T)		1.00	Intron	-	Tip	NO	
10I	IV	3,591,573	Ins.	+1 (T)		1.00	Intron	-	Arm	NO	
10I	IV	4,767,194	Ins.	+1 (T)		1.00	Intron	-	Core	NO	
10I	IV	16,328,040	Del.	-1 (A)		1.00	IG	-	Arm	-	
10I	V	7,066,302	Del.	-1 (A)		1.00	IG	-	Core	-	
10I	V	16,725,930	Del.	-1 (A)		1.00	IG	-	Arm	-	
10I	V	19,602,135	Del.	-13 (...)		1.00	Intron	-	Arm	NO	
10I	X	499,101	Del.	-1 (A)		1.00	IG	-	Tip	-	
10I	X	10,104,695	Del.	-1 (A)		1.00	UTR	-	Core	NO	
10I	X	11,218,815	Del.	-3 (ATG)		1.00	Exon	In-Frame	Core	NO	
10I	X	15,323,663	Del.	-2 (CG)		1.00	Intron	-	Arm	NO	
10J	I	1,719,426	Del.	-1 (T)		1.00	IG	-	Arm	-	
10J	I	3,273,837	Del.	-1 (A)		1.00	Intron	-	Arm	NO	
10J	I	9,797,817	Del.	-1 (A)		1.00	IG	-	Core	-	
10J	I	10,287,306	Del.	-1 (A)		1.00	IG	-	Core	-	
10J	I	14,349,294	Del.	-20 (...)		1.00	Intron	-	Arm	YES	
10J	II	342,766	Del.	-2 (TT)		1.00	Intron	-	Arm	NO	

10J	II	5,583,207	Del.	-7 (CAAAAGG)	1.00	Exon	Frameshift	Core	NO	
10J	II	8,675,893	Del.	-1 (A)	1.00	Intron	—	Core	NO	
10J	II	10,690,048	Del.	-2 (AA)	1.00	UTR	—	Core	NO	
10J	II	13,454,132	Del.	-1 (A)	1.00	Intron	—	Arm	NO	
10J	II	14,860,744	Ins.	+1 (A)	1.00	Intron	—	Tip	YES	
10J	III	582,515	Del.	-1 (T)	1.00	Intron	—	Arm	NO	
10J	IV	5,204,180	Del.	-1 (T)	1.00	IG	—	Core	—	
10J	V	441,421	Ins.	+1 (A)	1.00	IG	—	Tip	—	
10J	V	3,046,047	Del.	-4 (AGTT)	1.00	IG	—	Arm	—	
10J	V	8,056,057	Del.	-1 (G)	1.00	IG	—	Core	—	
10J	V	9,488,231	Del.	-1 (A)	1.00	Intron	—	Core	NO	
10J	V	10,306,357	Del.	-17 (...)	1.00	Exon	Frameshift	Core	NO	
10J	V	15,878,480	Del.	-1 (C)	1.00	Intron	—	Core	YES	
10J	V	16,955,697	Del.	-1 (T)	1.00	IG	—	Arm	—	
10J	X	5,015,560	Ins.	+1 (T)	1.00	IG	—	Arm	—	
10J	X	7,003,883	Del.	-1 (T)	1.00	Intron	—	Core	NO	
10J	X	13,067,789	Del.	-1 (T)	1.00	Intron	—	Arm	NO	
10J	X	14,797,006	Ins.	+1 (T)	1.00	IG	—	Arm	—	
N = 100	100A	I	4,428,616	Del.	-1 (A)	1.00	UTR	—	Core	YES
	100A	I	10,392,938	Del.	-93 (...)	1.00	IG	—	Core	—
	100A	II	401,004	Del.	-1 (A)	0.40	IG	—	Arm	—
	100A	II	955,798	Del.	-2 (GA)	1.00	Exon	Frameshift	Arm	NO
	100A	II	11,434,034	Del.	-1 (A)	1.00	IG	—	Core	—
	100A	II	14,901,112	Del.	-1 (T)	1.00	IG	—	Tip	—
	100A	III	1,838	Ins.	+2 (GA)	0.20	Exon	Frameshift	Tip	NO
	100A	IV	5,668,039	Del.	-1 (A)	1.00	Intron	—	Core	NO
	100A	IV	15,056,894	Ins.	+6 (ATTAC)	1.00	Exon	In-Frame	Arm	NO
	100A	V	1,398,637	Del.	-1 (A)	1.00	Intron	—	Arm	NO
	100A	V	8,110,101	Del.	103 (...)	1.00	Intron	—	Core	NO
	100A	V	9,358,223	Del.	-9 (CGATGAAAA)	1.00	Exon	In-Frame	Core	NO
	100A	V	12,323,048	Del.	-1 (A)	1.00	Intron	—	Core	NO
	100A	V	19,158,809	Del.	-48 (...)	0.20	UTR	—	Arm	NO
	100A	V	19,282,080	Ins.	+4 (GGAG)	1.00	IG	—	Arm	—
	100A	X	1,833,334	Del.	-1 (G)	1.00	IG	—	Arm	—

100A	X	2,248,293	Ins.	+1 (A)	0.20	IG	-	Arm	-
100A	X	10,872,787	Del.	-5 (AAAAC)	1.00	Exon	Frameshift	Core	NO
100A	X	11,981,066	Del.	-7 (TTGTTCT)	1.00	Exon	Frameshift	Core	NO
100A	X	13,573,426	Ins.	+1 (A)	1.00	IG	-	Arm	-
100A	X	15,440,962	Ins.	+1 (A)	0.60	UTR	-	Arm	NO
100B	I	3,826,981	Ins.	+1 (A)	0.20	IG	-	Arm	-
100B	I	12,651,776	Del.	-1 (T)	0.20	Intron	-	Arm	YES
100B	II	55,621	Del.	-2 (GC)	1.00	Intron	-	Tip	YES
100B	II	622,051	Del.	-1 (T)	0.20	Intron	-	Arm	NO
100B	II	10,661,017	Ins.	+1 (A)	1.00	UTR	-	Core	YES
100B	II	11,173,701	Del.	-4 (TACC)	1.00	Intron	-	Core	NO
100B	II	11,462,274	Del.	-1 (T)	1.00	Intron	-	Core	NO
100B	II	12,223,044	Del.	-1 (A)	1.00	IG	-	Arm	-
100B	II	13,189,908	Del.	-1 (T)	1.00	IG	-	Arm	-
100B	II	14,841,343	Ins.	+7 (GGTGCAA)	0.20	IG	-	Tip	-
100B	III	5,320,826	Ins.	+1 (A)	1.00	Intron	-	Core	YES
100B	III	9,343,809	Del.	-1 (T)	0.60	Intron	-	Core	NO
100B	III	11,753,681	Del.	-1 (A)	1.00	Intron	-	Arm	NO
100B	IV	5,521,566	Ins.	+1 (A)	0.20	Intron	-	Core	YES
100B	IV	11,353,376	Del.	-12 (...)	0.20	Intron	-	Core	NO
100B	IV	13,713,785	Del.	-1 (A)	0.20	IG	-	Arm	-
100B	IV	15,918,051	Ins.	+1 (A)	1.00	IG	-	Arm	-
100B	V	5,364,459	Del.	-1 (T)	0.20	IG	-	Arm	-
100B	V	5,591,858	Del.	-1 (A)	0.20	IG	-	Arm	-
100B	V	8,195,285	Del.	-5 (ATCGA)	0.60	Intron	-	Core	NO
100B	X	2,451,894	Del.	-1 (C)	1.00	IG	-	Arm	-
100B	X	5,099,029	Del.	-1 (A)	0.20	IG	-	Arm	-
100B	X	5,468,932	Del.	-5 (CAGCC)	0.60	Intron	-	Arm	YES
100B	X	10,575,837	Del.	-2 (AG)	1.00	IG	-	Core	-
100B	X	16,000,897	Del.	-1 (G)	0.20	Exon	Frameshift	Arm	-
100B	X	17,085,499	Ins.	+1 (G)	1.00	IG	-	Tip	-
100C	I	9,073,251	Del.	-1 (A)	1.00	Intron	-	Core	NO
100C	I	14,065,379	Del.	-1 (G)	1.00	Intron	-	Arm	NO
100C	II	1,001,704	Del.	-3 (TAA)	1.00	IG	-	Arm	-

100C	II	1,655,270	Ins.	+1 (A)	0.80	Exon	Frameshift	Arm	NO
100C	II	5,020,917	Del.	-8 (TCGTTGGA)	1.00	IG	—	Core	—
100C	II	14,280,928	Del.	-40 (...)	1.00	Intron	—	Arm	YES
100C	III	312,604	Del.	-1 (A)	1.00	Intron	—	Tip	YES
100C	III	583,840	Del.	-3 (TTC)	1.00	Intron	—	Arm	NO
100C	III	11,540,921	Ins.	+3 (CGG)	0.20	Exon	In-Frame	Arm	NO
100C	IV	162,268	Del.	-2 (AT)	1.00	IG	—	Tip	—
100C	IV	4,127,859	Del.	-16 (...)	0.20	IG	—	Core	—
100C	IV	4,423,282	Del.	-10 (...)	1.00	Intron	—	Core	NO
100C	IV	4,908,985	Del.	-1 (A)	1.00	Exon	Frameshift	Core	—
100C	IV	15,210,428	Del.	-2 (TT)	0.80	Intron	—	Arm	NO
100C	V	2,899,638	Del.	-51 (...)	1.00	Exon	In-Frame	Arm	NO
100C	V	18,404,517	Del.	-1 (A)	1.00	Intron	—	Arm	NO
100C	V	19,425,405	Del.	-7 (TTGATGT)	0.20	Exon	Frameshift	Arm	NO
100C	V	20,329,787	Ins.	+1 (A)	1.00	Intron	—	Arm	NO
100C	X	1,633,188	Ins.	+1 (A)	1.00	Intron	—	Arm	NO
100C	X	3,780,293	Del.	-1 (A)	1.00	Intron	—	Arm	NO
100C	X	4,151,274	Ins.	+1 (A)	0.20	Intron	—	Arm	NO
100C	X	7,398,037	Del.	-6 (TCGGTG)	1.00	IG	—	Core	—
100C	X	14,732,066	Del.	-7 (CTGGTGT)	1.00	IG	—	Arm	—
100C	X	17,370,043	Del.	-1 (A)	1.00	IG	—	Tip	—
100D	I	1,383,204	Ins.	+1 (T)	1.00	Intron	—	Arm	NO
100D	I	8,900,984	Ins.	+1 (T)	1.00	Intron	—	Core	NO
100D	I	10,527,511	Del.	-39 (...)	1.00	Intron	—	Core	NO
100D	I	13,330,386	Del.	-3 (ATG)	0.20	Intron	—	Arm	NO
100D	I	14,511,333	Ins.	+1 (A)	1.00	IG	—	Arm	—
100D	II	2,819,386	Del.	-1 (T)	1.00	IG	—	Arm	—
100D	II	14,636,124	Del.	-1 (G)	1.00	Intron	—	Tip	NO
100D	III	4,262,465	Ins.	+1 (T)	1.00	Exon	Frameshift	Core	NO
100D	III	12,348,710	Del.	-1 (T)	1.00	Intron	—	Arm	YES
100D	IV	2,096,993	Del.	-1 (A)	0.80	Intron	—	Arm	NO
100D	IV	14,620,799	Ins.	+2 (CA)	1.00	Intron	—	Arm	NO
100D	V	4,523,767	Ins.	+2 (TG)	1.00	Intron	—	Arm	YES
100D	V	11,395,511	Del.	-42 (...)	1.00	Exon	In-Frame	Core	—

100D	V	11,403,448	Del.	-1 (C)	1.00	Exon	Frameshift	Core	–
100D	V	13,841,332	Del.	-3 (AAC)	1.00	Intron	–	Core	NO
100D	V	19,618,101	Del.	-1 (A)	1.00	Exon	Frameshift	Arm	NO
100D	V	19,811,630	Del.	-31 (...)	0.40	IG	–	Arm	–
100D	X	9,170,638	Del.	-1 (T)	1.00	IG	–	Core	–
100D	X	9,910,852	Del.	-22 (...)	1.00	Intron	–	Core	NO
100D	X	14,437,994	Del.	-2 (TG)	1.00	IG	–	Arm	–
100D	X	14,872,248	Del.	-2 (GA)	0.20	Exon	Frameshift	Arm	NO
100D	X	16,398,691	Del.	-1 (A)	1.00	IG	–	Arm	–
100E	I	1,360,489	Del.	-6 (TCAAAA)	1.00	IG	–	Arm	–
100E	I	3,345,014	Ins.	+1 (A)	0.20	Intron	–	Arm	YES
100E	I	8,879,298	Del.	-1 (A)	0.60	Intron	–	Core	NO
100E	I	11,438,029	Ins.	+1 (C)	0.60	IG	–	Arm	–
100E	I	11,536,071	Del.	-1 (A)	1.00	Intron	–	Arm	YES
100E	I	13,460,309	Del.	-1 (A)	1.00	Intron	–	Arm	NO
100E	II	2,693,097	Del.	-1 (A)	1.00	Intron	–	Arm	NO
100E	II	13,320,950	Del.	-1 (A)	0.20	IG	–	Arm	–
100E	III	5,095,124	Ins.	+1 (T)	1.00	IG	–	Core	–
100E	III	6,430,242	Del.	-1 (T)	1.00	Intron	–	Core	NO
100E	III	7,043,171	Del.	-3 (TCA)	1.00	Intron	–	Core	NO
100E	III	10,805,241	Ins.	+1 (A)	1.00	IG	–	Arm	–
100E	IV	2,652,540	Ins.	+7 (CATCTAG)	0.60	Intron	–	Arm	NO
100E	IV	3,361,644	Del.	-1 (T)	1.00	IG	–	Arm	–
100E	V	45,246	Del.	-1 (T)	1.00	IG	–	Tip	–
100E	V	64,416	Ins.	+1 (C)	1.00	Exon	Frameshift	Tip	NO
100E	V	8,340,709	Ins.	+8 (ATTTTTCG)	1.00	IG	–	Core	–
100E	V	16,580,620	Del.	-1 (A)	0.20	IG	–	Arm	–
100E	V	19,691,632	Del.	-1 (A)	0.20	Intron	–	Arm	NO
100E	X	5,602,655	Del.	-1 (A)	1.00	IG	–	Arm	–
100E	X	9,639,516	Ins.	+1 (A)	1.00	IG	–	Core	–
100E	X	14,531,387	Del.	-5 (GTAGC)	0.60	IG	–	Arm	–
100E	X	16,446,282	Ins.	+1 (T)	1.00	UTR	–	Tip	YES

**Table S3. Fitted coefficients and odds ratios (*OR*) for predictors used in the logistic regression of mutability of sites.**

Predictor	Coefficient	<i>OR</i>
V	0.208955378	1.232390005
X	0.031380448	1.031878005
IV	0.027181504	1.027554291
II	-0.05864973	0.943037029
III	-0.07606112	0.926759563
I	-0.1376191	0.871430555
Exon	0.249273219	1.28309255
Intron	0.165313946	1.179763442
Intergenic	0.119113886	1.126498203
3' UTR	0	1
5' UTR	0	1
Arm	0.159176671	1.172545084
Tip	0.098501111	1.103515631
Core	0	1
Recombination Rate	0.009437621	1.009482296
Germline Expressed	0.156346931	1.169231775
Repeat Sequence	1.675653181	5.342283486
Sequence Complexity (40 bp)	0.284333484	1.328876015
GC-content (40 bp)	-1.04463058	0.351821766
TAA/TTA	1.586586222	4.887037161
CGC/GCG	1.094723031	2.988354888
GCA/TGC	0.978553851	2.660605825
CCG/CGG	0.976246885	2.654474973
ACA/TGT	0.93597812	2.549706158
ACC/GGT	0.831225273	2.296130405
ACG/CGT	0.79906061	2.223451258
CGA/TCG	0.757614505	2.133181453
AGC/GCT	0.666772975	1.947941112
GCC/GGC	0.664904719	1.944305258
CCA/TGG	0.649537284	1.914654682
AGG/CCT	0.635506922	1.887978957
TCA/TGA	0.544322532	1.72344041
ACT/AGT	0.520514671	1.682893563
AGA/TCT	0.486251677	1.626209223
GGA/TCC	0.429202235	1.536031642
CCC/GGG	0.355950101	1.427536315
GAC/GTC	0.256166012	1.291967192
CTA/TAG	-0.10864796	0.897046162
CAC/GTG	-0.13437188	0.874264883
ATA/TAT	-0.14561697	0.864488766
GTA/TAC	-0.19179941	0.825472436
ATG/CAT	-0.24230759	0.784814738
AAG/CTT	-0.25669783	0.77360194
CAG/CTG	-0.27302966	0.761070217
ATC/GAT	-0.35365871	0.702114551
AAT/ATT	-0.38327954	0.681622331
AAC/GTT	-0.50545136	0.603233237
CTC/GAG	-0.52425384	0.591996925
GAA/TTC	-0.638954	0.527844263
CAA/TTG	-0.77510037	0.460657542
AAA/TTT	-1.29234358	0.274626419