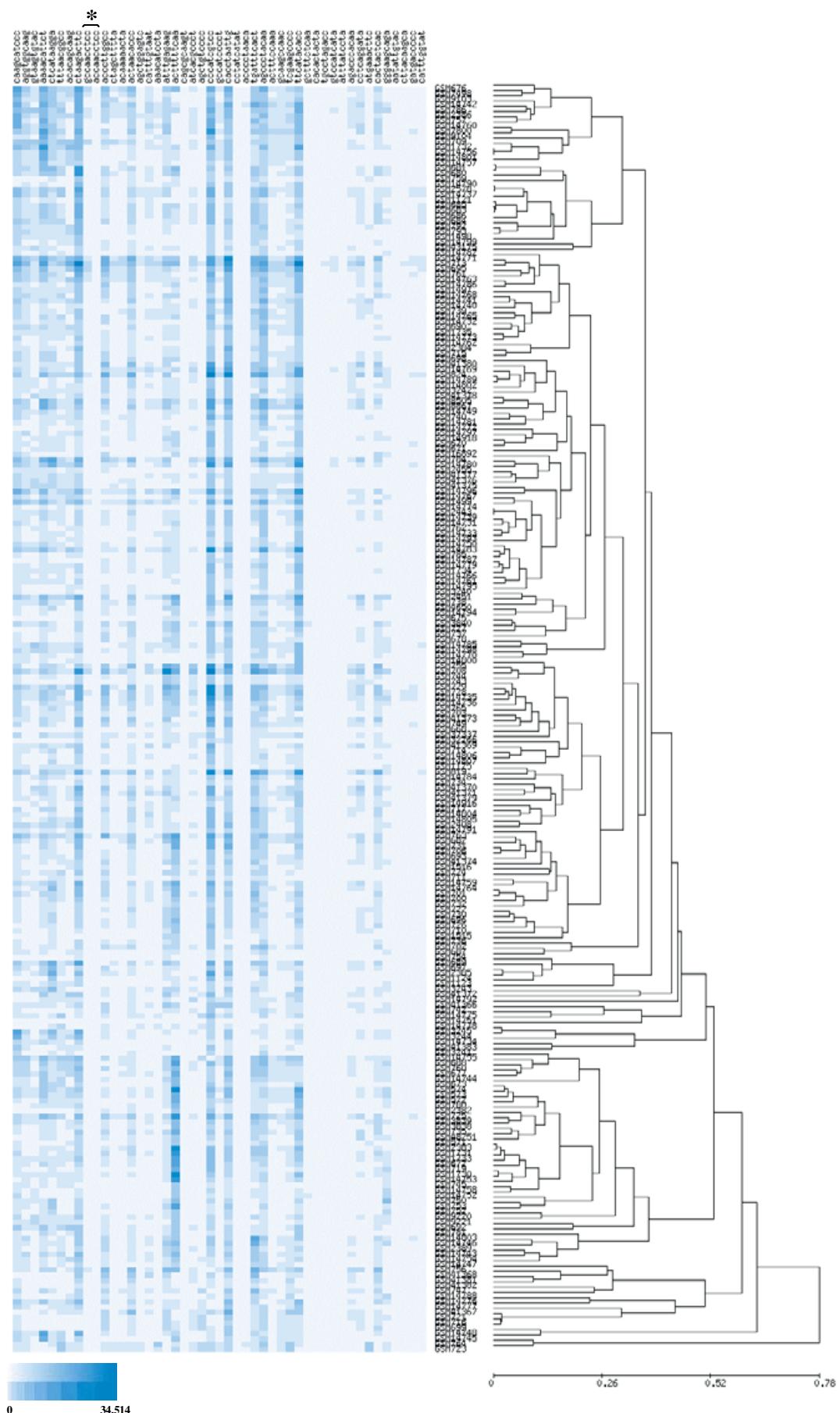
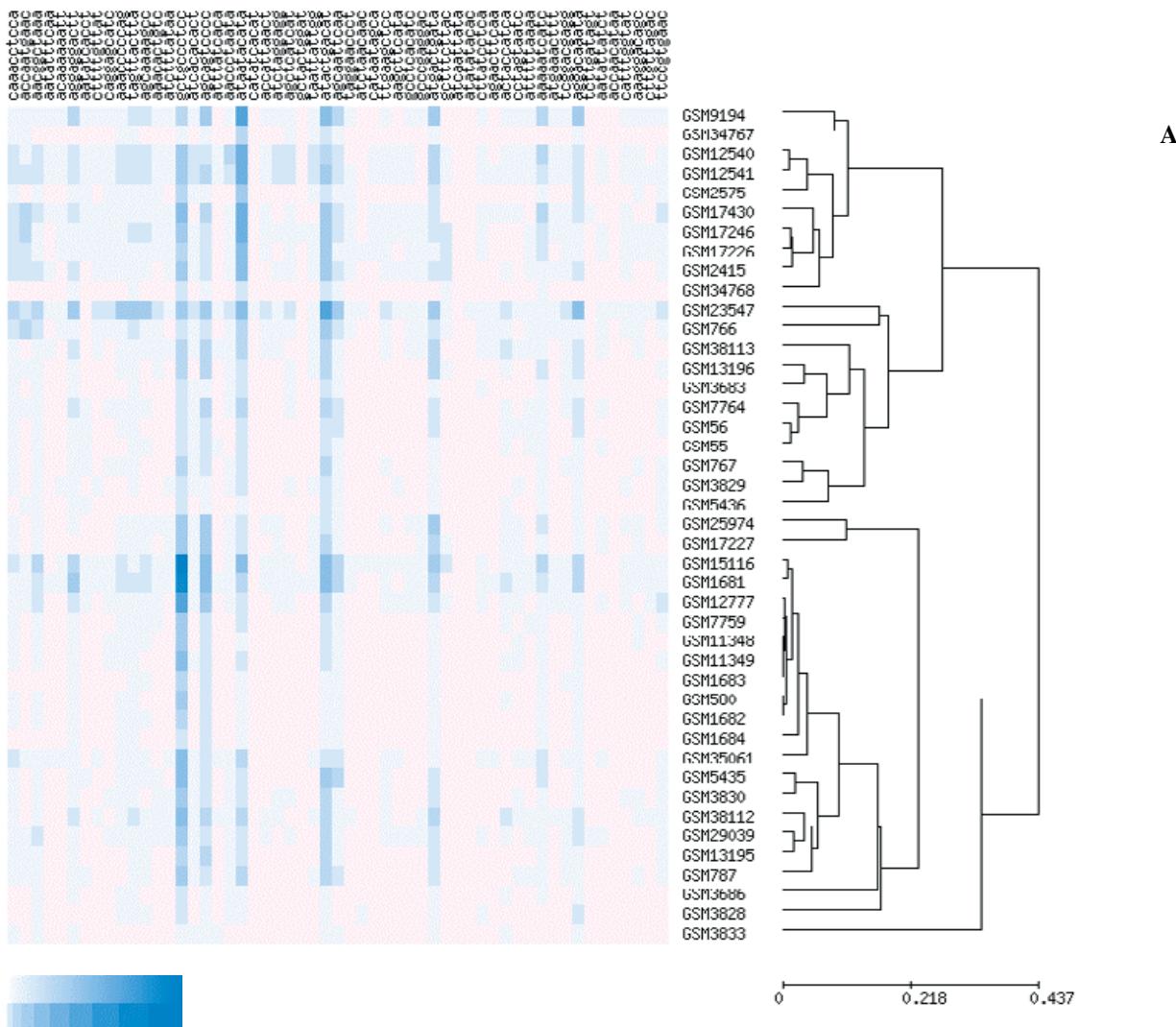


Supplemental Fig. 1. Distribution and relative positions of SAGE *NlaIII* anchoring enzyme restriction sites in human, mouse, rat, bovine and swine mitochondrial genomes. Circular mitochondrial DNA is plotted in linear form. Oblique strokes indicate overlaps in the coding sequences; the vertical arrow ( $\downarrow$ ) with an asterisk (\*) indicates the starting position; scale bars correspond to 1 kb. Shaded areas represent tRNAs (black) and control region (D-loop; grey). Left-headed arrows ( $\leftarrow$ ) indicate areas encoded by the light strand (L strand). Filled triangles under the bars ( $\blacktriangle$ ) indicate *NlaIII* restriction sites.

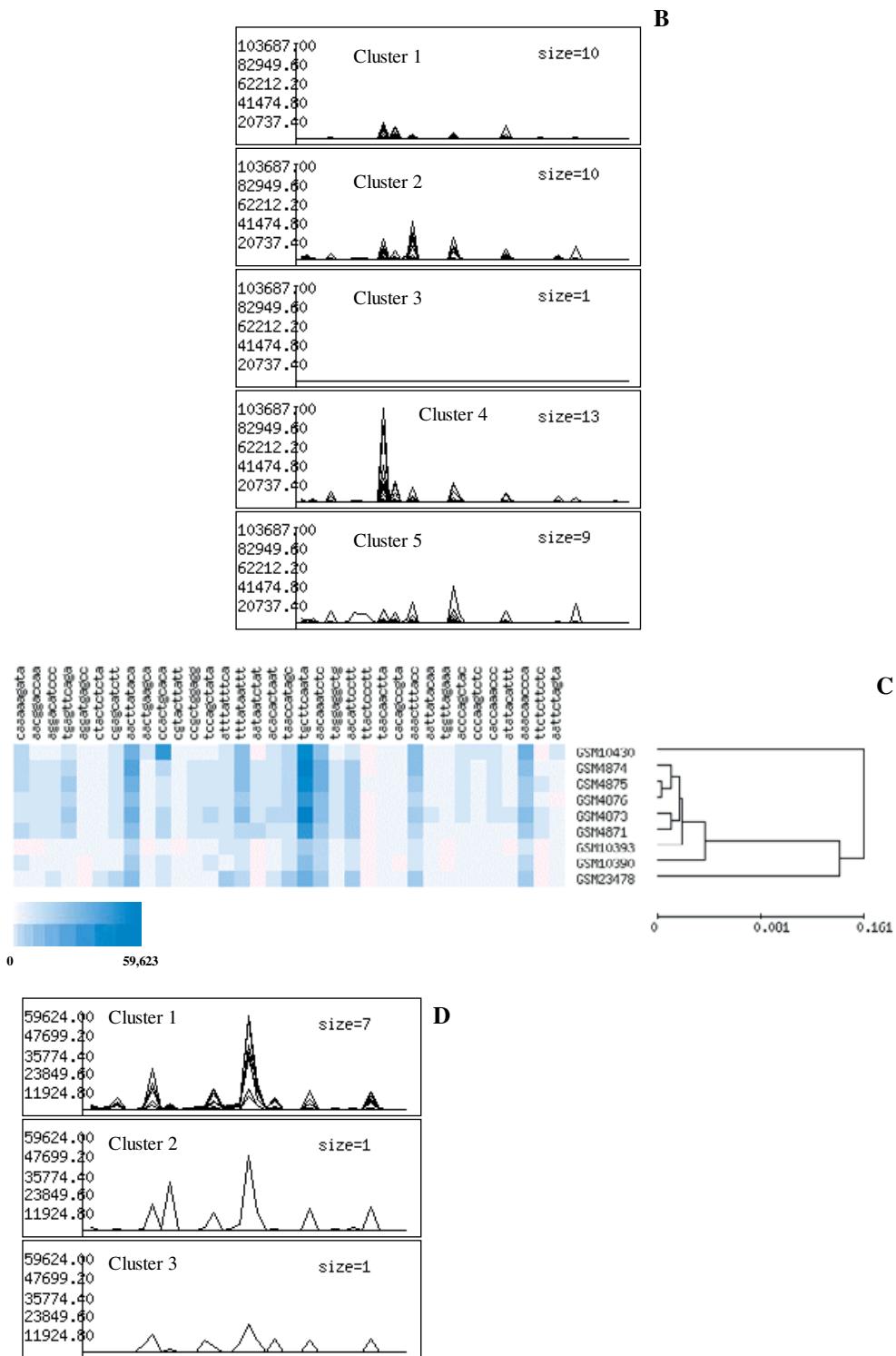


Supplemental Fig. 2 For legend see opposite page.

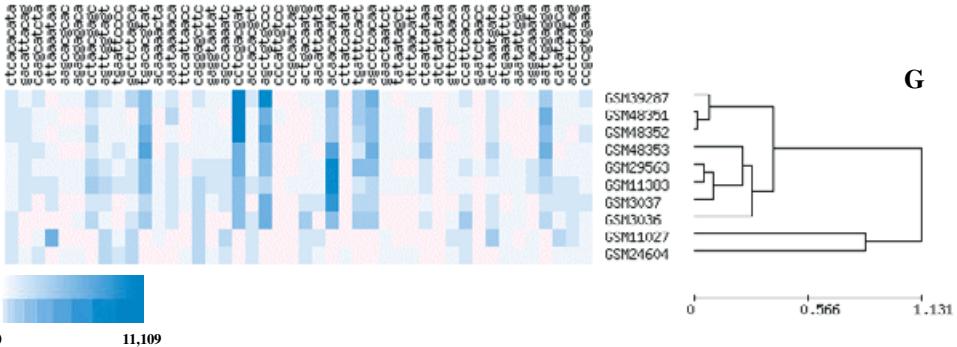
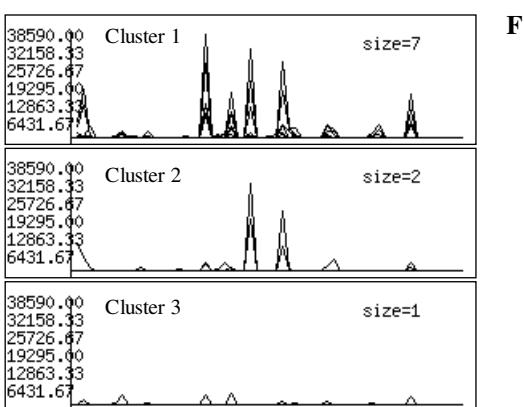
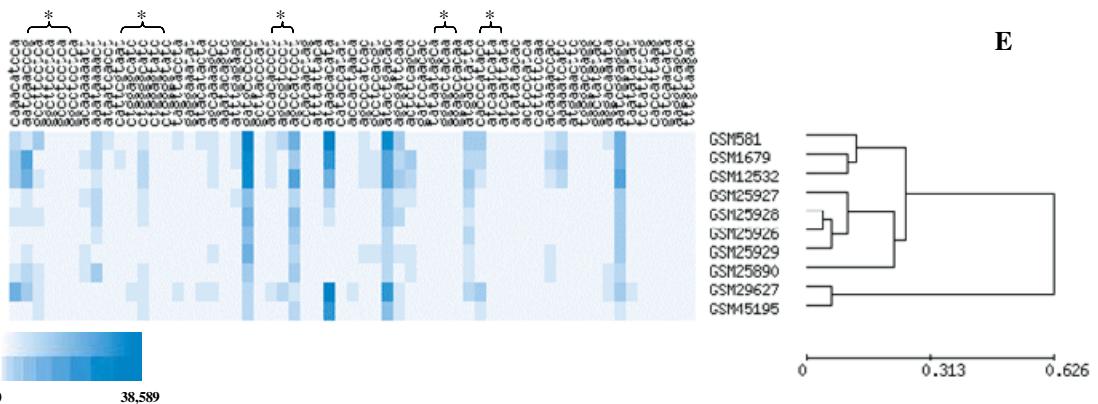


Supplemental Fig. 3. (Cont.)

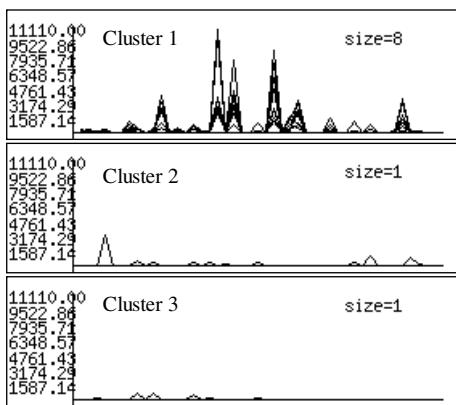
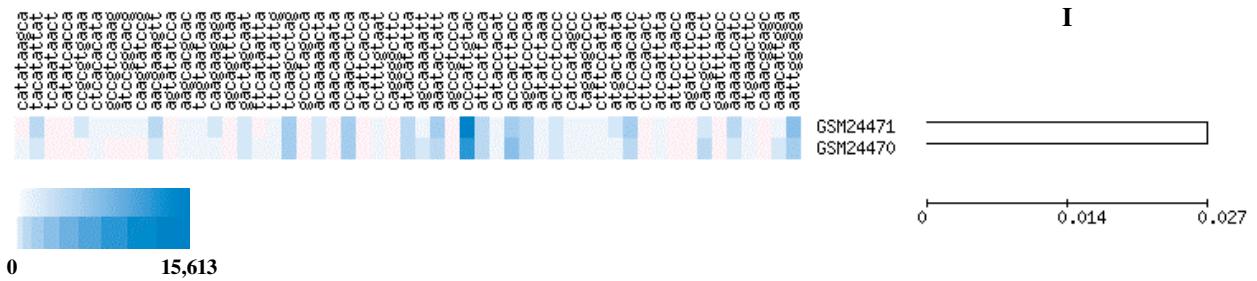
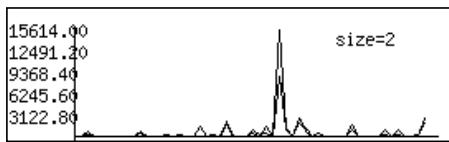
Supplemental Fig. 2. Hierarchical cluster tree for human *NlaIII*-derived SAGE dataset (239 libraries). Average linkage (average distance, UPGMA (unweighted pair group method with arithmetic mean)) clustering method based on linear correlation-based distance (Pearson, centered) have been used. Harmonic color code (20 colors) is based on the normalized TPM values. Asterisk (\*) denotes variant SAGE tags.



Supplemental Fig. 3. (Cont.)



Supplemental Fig. 3. (Cont.)

**H****I****J**

Supplemental Fig. 3. Hierarchical cluster trees and gene expression patterns recognized by K-mean clustering analysis, as identified for: *Mus musculus*, *NlaIII*, *Sau3A I* (*A*, *B* and *C*, respectively); *Rattus norvegicus*, *NlaIII* (*E*, *F*); *Bos taurus*, *NlaIII* (*G*, *H*); and *Sus scrofa*, *NlaIII* (*J*, *J*). Harmonic colour code (10 colours) is based on the normalized tpm values for each individual dataset. Asterisks (\*) denote variant SAGE tags. Note the significant diversity among possible transcription profiles with either relatively high expression characteristic for a few individual transcripts (e.g. *B*, Cluster 4 and *D*, Cluster 1), or with more proportional expression profiles (e.g. *D*, Cluster 3).

Supplemental Table 1. Particulars of SAGE libraries used in the study

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
<i>Homo sapiens, GPL4 (NlaIII)</i>					
1	GSM1	Foreskin fibroblasts	×		9742 tags
2	GSM2	HCMV-infected foreskin fibroblasts	—		
3	GSM571	Retinal pigment epithelium (RPE)	+	53 655	
4	GSM572	Peripheral retina	+	59 580	
5	GSM573	Peripheral retina	+	104 848	
6	GSM574	Central retina (macula)	+	102 053	
7	GSM668	Kidney, embryonic cell line 293, uninduced cells	+	43 457	
8	GSM669	Kidney, induced embryonic cell line 293, expressing $\beta$ -catenin	—		
9	GSM670	Breast tumour	+	40 164	
10	GSM671	Metastasis from breast tumour	+	45 611	
11	GSM672	Breast, invasive ductal carcinoma	+	67 319	
12	GSM673	Metastasis from breast tumour	+	60 910	
13	GSM674	Cell line induced with synthetic androgen (R1881)	—		
14	GSM675	Ovary	+	22 259	
15	GSM676	Brain, normal, greater than 95% white matter	+	94 652	
16	GSM677	Breast, normal luminal mammary epithelium	+	37 565	
17	GSM678	Pancreas	+	37 894	
18	GSM680	Prostate carcinoma cell line	+	41 450	
19	GSM681	Prostate carcinoma cell line	+	43 934	
20	GSM682	Colon, colorectal carcinoma cell line	+	61 494	
21	GSM683	Prostate carcinoma cell line	+	62 493	
22	GSM684	Prostate carcinoma cell line	+	64 983	
23	GSM685	Normal prostate tissue	+	66 384	
24	GSM686	Prostate tumour tissue	+	68 540	
25	GSM687	Breast, ductal carcinoma <i>in situ</i>	+	41 274	
26	GSM688	Breast, ductal carcinoma <i>in situ</i>	+	28 896	
27	GSM689	Primary tumour, well-differentiated oligodendrogloma	+	28 112	
28	GSM690	Brain, medulloblastoma grade IV	+	38 931	
29	GSM691	Mammary gland, epithelium, ductal, normal	×		7139 tags
30	GSM692	Mammary gland, epithelium, ductal, normal	+	12 123	
31	GSM693	Medulloblastoma tumour	+	19 504	
32	GSM694	Mammary gland, ductal, carcinoma	×		5608 tags
33	GSM695	Brain, normal, greater than 95% white matter	+	58 770	
34	GSM696	Brain, Duke glioblastoma multiforme primary tumour	+	69 779	
35	GSM697	Brain, anaplastic astrocytoma, primary tumour	+	52 432	
36	GSM698	Primary tumour, pilocytic astrocytoma	+	76 972	
37	GSM699	Brain, astrocytoma	+	28 150	
38	GSM700	Brain, glioblastoma multiforme	+	71 840	
39	GSM701	Brain, glioblastoma multiforme	+	60 477	
40	GSM702	Brain, <i>c-myc</i> positive medulloblastoma cell line H341	+	44 572	
41	GSM703	Brain, Duke glioblastoma multiforme cell line	+	57 549	
42	GSM704	Brain, glioblastoma multiforme cell line, stably transfected with epidermal growth factor receptor vIII mutant	—		
43	GSM705	Brain, glioblastoma multiforme cell line, stably transfected with the $\beta$ -galactosidase gene	—		
44	GSM706	Microvascular endothelial cells (HMVEC)	+	52 447	
45	GSM707	Microvascular endothelial cells (HMVEC) treated with VEGF	—		
46	GSM708	Normal kidney tissue	+	41 652	
47	GSM709	Leukocyte	+	48 447	
48	GSM710	Brain, <i>c-myc</i> negative medulloblastoma cell line mhh-1	+	48 370	
49	GSM711	Skin, post-crisis survival fibroblast cell-line	+	22 317	
50	GSM712	Skin, large T antigen transformed human fibroblasts clones, precrisis	×		8783 tags
51	GSM713	Brain, normal thalamus	+	48 502	
52	GSM714	Ovarian clear cell carcinoma cell line ES-2, poorly differentiated	+	31 484	
53	GSM715	Brain, primary tumour, well-differentiated, fibrillary astrocytoma	+	17 558	
54	GSM716	Pancreas, epithelium, ductal, normal, cell line	+	32 511	
55	GSM717	Colon, cell line derived from colorectal carcinoma	+	60 310	
56	GSM718	Mammary gland, epithelium, normal	×		1423 tags

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
57	GSM719	Ovary, normal surface epithelium	+	48 421	
58	GSM721	Pancreas, normal duct epithelial cells	+	32 224	
59	GSM722	Ovarian surface epithelium cell line	+	48 415	
60	GSM723	Prostate, advanced tumour	+	23 009	
61	GSM724	Prostate, adenocarcinoma, cell line	+	22 601	
62	GSM725	Mammary gland, adenocarcinoma	+	18 994	
63	GSM726	Ovary cystadenoma	+	56 950	
64	GSM727	Abdominal peritoneum, primary mesothelioma (pure epithelial)	+	35 076	
65	GSM728	Normal colonic epithelium	+	50 162	
66	GSM729	Normal colonic epithelium	+	49 554	
67	GSM730	Brain, normal human astrocyte cells	+	52 140	
68	GSM731	Ovarian carcinoma	+	17 441	
69	GSM732	Ovary, carcinoma cell line	+	38 895	
70	GSM733	Ovary, carcinoma cell line	×		2871 tags
71	GSM734	Ovary, pooled cancer cell lines	+	10 884	
72	GSM735	Primary ovarian tumour, serous adenocarcinoma	+	42 296	
73	GSM736	Primary ovarian tumour, serous adenocarcinoma	+	54 934	
74	GSM737	Primary ovarian tumour, serous adenocarcinoma	+	33 551	
75	GSM738	Peritoneum, sheet (>90 % mesothelial cells)	+	53 976	
76	GSM739	Normal prostate tissue	+	59 441	
77	GSM740	Prostate, adenocarcinoma	+	65 252	
78	GSM741	Breast, cancer cell line	×		9372 tags
79	GSM742	Pancreas, cancer cell line	+	24 890	
80	GSM743	Pancreas tumour	+	33 924	
81	GSM744	Pancreas tumour	+	35 716	
82	GSM745	Brain, primary tumour parietal lobe	+	59 414	
83	GSM746	Prostate, carcinoma	×		9232 tags
84	GSM747	Colon, cancer cell line	+	51 959	
85	GSM748	Mammary gland, adenocarcinoma, malignant effusion	×		8094 tags
86	GSM749	Adenocarcinoma, colon, cell line	+	60 850	
87	GSM750	Breast carcinoma, pleural effusion	+	61 349	
88	GSM751	Breast carcinoma, pleural effusion	×		5890 tags
89	GSM752	Breast carcinoma, pleural effusion	+	60 623	
90	GSM753	Breast carcinoma, pleural effusion	+	59 949	
91	GSM754	Prostate, cell line	+	11 363	
92	GSM755	Adenocarcinoma, colon	+	57 653	
93	GSM756	Adenocarcinoma, colon	+	49 017	
94	GSM757	Stomach, human primary gastric cancer gastroesophageal junction adenocarcinoma	+	65 855	
95	GSM758	Stomach, human primary gastric cancer tissue propagated through nude mice (xenograft)	-		
96	GSM759	Breast, cancer cell line	+	18 472	
97	GSM760	Mammary gland, epithelium, ductal, normal	+	49 208	
98	GSM761	Normal cerebellum	+	51 137	
99	GSM762	Normal lung tissue	+	88 901	
100	GSM763	Brain, normal	+	63 085	
101	GSM764	Prostate, normal	+	13 293	
102	GSM765	Brain, glioblastoma multiforme primary tumour	+	61 795	
103	GSM780	Breast, normal breast tissue (gestational hyperplasia)	+	63 206	
104	GSM781	Breast, normal mammary myoepithelial cells	+	58 432	
105	GSM784	Normal gastric epithelial tissues	+	25 252	
106	GSM785	Normal liver tissue	+	66 601	
107	GSM786	Frontal cortex	+	77 570	
108	GSM792	Brain, ependymoblastoma, primary tumour	+	34 486	
109	GSM793	Brain, ependymoma, recurrent tumour	+	56 831	
110	GSM819	Normal human muscle (old)	+	53 853	
111	GSM824	Normal human muscle (young)	+	53 875	
112	GSM1121	Cultured human epidermal keratinocytes	+	12 799	
113	GSM1122	Cultured human epidermal keratinocytes, stimulated with TNF- $\alpha$	-		
114	GSM1123	Epidermis	+	15 150	
115	GSM1124	Epidermis	+	11 556	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
116	GSM1125	Affected epidermis of kidney transplant recipient suffering from actinic keratosis (AK)	+	10 074	
117	GSM1128	Breast cancer cell line	×		1 tag (-)
118	GSM1129	Breast cancer cell line; estrogen-treated	-		
119	GSM1130	Breast cancer cell line; tamoxifen-treated	-		
120	GSM1497	Brain, ependymoma	+	46 837	
121	GSM1498	Brain, glioblastoma multiforme (glioma)	+	62 629	
122	GSM1499	Normal heart tissue	+	84 153	
123	GSM1514	PC3 cells, JNK2AS treatment	-		*
124	GSM1515	PC3 cells	+	38 819	*
125	GSM1516	Hemangioma tumour	+	76 075	
126	GSM1652	Normal corneal endothelium	×		9536 tags
127	GSM1653	Fuchs' corneal endothelium	×		9874 tags
128	GSM1730	Breast, ductal carcinoma <i>in situ</i>	+	60 894	
129	GSM1731	Breast, ductal carcinoma <i>in situ</i>	+	43 689	
130	GSM1732	Brain, astrocytoma tumour	+	81 208	
131	GSM1733	Mammary gland, invasive ductal carcinoma with some <i>in situ</i> component	+	69 957	
132	GSM1734	Pooled organs and tissues include: B-lymphocyte (plasmacytoma, myeloma), mammary gland (adenocarcinoma), liver (hepatoblastoma), cervix (adenocarcinoma), testis (embryonal carcinoma), brain (glioblastoma), melanoma, liposarcoma, macrophage (histiocytic lymphoma, histiocyte), and T-lymphoblast (lymphoblastic leukemia) // Universal reference	+	51 711	
133	GSM1735	Brain, ependymoma	+	74 373	
134	GSM2382	Mammary gland, ductal, invasive carcinoma	+	64 908	
135	GSM2383	Mammary gland, ductal, invasive carcinoma	+	61 235	
136	GSM2384	Brain, ependymoma	+	52 871	
137	GSM2385	Primary gastric cancer tissue	+	63 882	
138	GSM2386	Normal spinal cord	+	55 199	
139	GSM2389	Mammary gland, ductal carcinoma	+	58 779	
140	GSM2408	Brain, ependymoma	+	52 579	
141	GSM2443	Brain, astrocytoma	+	80 165	
142	GSM2451	Brain, astrocytoma	+	38 603	
143	GSM2455	Uterine cervix normal	+	30 344	
144	GSM2578	Brain, astrocytoma	+	69 447	
145	GSM3240	Nodular skin lesion of an AIDS-KS patient	+	45 907	
146	GSM3241	Nodular skin lesion of an AIDS-KS patient	+	47 311	
147	GSM3242	Normal skin	+	37 247	
148	GSM3243	AIDS-KS lesion	+	45 973	
149	GSM3244	AIDS-KS lesion	+	45 766	
150	GSM3245	CD4+ T-cells	+	51 116	
151	GSM3838	Normal pancreatic exocrine cells	+	17 768	
152	GSM3839	Pancreatic islets	+	18 765	
153	GSM3840	Pancreatic islets	+	12 252	
154	GSM4650	Normal thyroid tissue	+	10 982	
155	GSM7498	Type 2 Gaucher patient cerebral cortex gray matter	+	31 360	
156	GSM7800	Primary gastric cancer tissue, poorly differentiated (scirrhous type)	+	34 571	
157	GSM8505	Primary gastric cancer tissue	+	31 974	
158	GSM8867	Primary gastric cancer tissue	+	43 633	
159	GSM9103	Primary gastric cancer tissue, poorly differentiated (diffuse-adherent type)	+	11 545	
160	GSM9104	Lymph node metastasis from gastric cancer	+	15 312	
161	GSM9220	Undifferentiated HES3 40P human embryonic stem cells	+	67 632	
162	GSM9221	Undifferentiated HES4 40P human embryonic stem cells	+	76 983	
163	GSM14731	Medulloblastoma, cerebellum	+	52 200	
164	GSM14732	Medulloblastoma, cerebellum	+	48 287	
165	GSM14733	Medulloblastoma, cerebellum	+	42 903	
166	GSM14734	Medulloblastoma, cerebellum	+	69 574	
167	GSM14735	Pancreas, epithelium, ductal, carcinoma, cell line	+	31 184	
168	GSM14736	Pancreas, epithelium, ductal, carcinoma, cell line	+	29 495	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
169	GSM14737	Brain astrocytoma	+	105 659	
170	GSM14739	Brain astrocytoma	+	88 464	
171	GSM14740	Brain ependymoma	+	122 655	
172	GSM14741	Brain ependymoma	+	120 382	
173	GSM14742	Brain cortex, oligodendrogloma	+	32 272	
174	GSM14743	Mammary gland, epithelium, ductal, carcinoma	+	72 816	
175	GSM14744	Leucocytes from breast carcinoma	+	66 136	
176	GSM14745	Breast carcinoma myoepithelium	+	81 376	
177	GSM14746	Breast carcinoma epithelium	+	89 156	
178	GSM14747	Breast carcinoma myoepithelium	+	37 392	
179	GSM14748	Mammary gland, endothelium, ductal, carcinoma	+	65 236	
180	GSM14749	Normal first trimester placenta	+	89 080	
181	GSM14750	Normal term placenta	+	117 562	
182	GSM14751	Skin, melanoma	+	26 030	
183	GSM14752	Normal prostate epithelium	+	70 944	
184	GSM14753	Breast carcinoma metastasis to lung	+	49 538	
185	GSM14754	Mammary gland, normal endothelium	+	33 089	
186	GSM14755	Normal leucocytes	+	31 970	
187	GSM14756	Mammary gland	+	58 039	
188	GSM14757	Normal breast stroma	+	78 921	
189	GSM14758	Normal prostate epithelium, senescent cells	+	70 949	
190	GSM14759	Brain, medulloblastoma, cell line	+	66 000	
191	GSM14760	Stomach, poorly differentiated carcinoma	+	51 456	
192	GSM14761	Brain, medulloblastoma	+	84 891	
193	GSM14762	Brain ependymoma	+	68 552	
194	GSM14763	Brain anaplastic astrocytoma	+	106 942	
195	GSM14764	Brain, medulloblastoma, cell line	+	66 210	
196	GSM14765	Brain, astrocytoma	+	102 362	
197	GSM14766	Brain, astrocytoma, anaplastic	+	107 172	
198	GSM14767	Brain, glioblastoma	+	100 496	
199	GSM14768	Brain, glioblastoma	+	102 261	
200	GSM14769	Brain, glioblastoma	+	99 061	
201	GSM14770	Normal pancreas	+	21 715	
202	GSM14771	Placenta	+	101 557	
203	GSM14772	Brain, medulloblastoma	+	60 405	
204	GSM14773	Brain, anaplastic astrocytoma	+	118 642	
205	GSM14774	Brain, medulloblastoma with neuroblastic differentiation	+	85 699	
206	GSM14775	Skin, primary malignant melanoma	+	41 332	
207	GSM14776	Brain, ependymoma	+	75 215	
208	GSM14777	Thyroid	+	115 752	
209	GSM14778	Skin, desmoplastic melanoma metastasis	+	11 392	
210	GSM14779	Brain, medulloblastoma	+	72 077	
211	GSM14780	Normal gastric epithelial tissue from the antrum	+	26 619	
212	GSM14781	Brain desmoplastic medulloblastoma	+	83 506	
213	GSM14782	Brain desmoplastic medulloblastoma	+	68 158	
214	GSM14783	Brain anaplastic medulloblastoma	+	71 698	
215	GSM14784	Bone marrow	+	36 358	
216	GSM14785	Lymph node	+	99 084	
217	GSM14786	Brain, ependymoma	+	83 857	
218	GSM14787	Brain, anaplastic medulloblastoma	+	57 376	
219	GSM14788	Brain, medulloblastoma	+	74 158	
220	GSM14789	Normal bone marrow	+	86 377	
221	GSM14790	Brain, medulloblastoma	+	45 296	
222	GSM14791	Brain, medulloblastoma	+	32 406	
223	GSM14792	Brain, large cell medulloblastoma, metastasis	+	59 458	
224	GSM14793	Brain, medulloblastoma, metastasis	+	88 976	
225	GSM14794	Brain, medulloblastoma	+	74 167	
226	GSM14795	Brain, large cell medulloblastoma	+	67 134	
227	GSM14796	Brain, substantia nigra	+	42 326	
228	GSM14797	Breast, carcinoma, ductal, invasive	+	21 909	
229	GSM14798	Normal liver	+	78 257	
230	GSM14799	Fetal brain	+	308 295	
231	GSM14800	Primary ductal <i>in situ</i> breast carcinoma	+	50 866	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
232	GSM14801	Normal breast tissue	+	59 185	
233	GSM14802	Normal bone marrow	+	81 576	
234	GSM14803	Lymph nodes, invasive breast tumour	+	18 741	
235	GSM14804	Lung cell line	+	28 928	
236	GSM14805	Lung cell line	+	42 168	
237	GSM14806	Lung, well differentiated adenocarcinoma with lymphoplasmatic infiltration	+	35 889	
238	GSM14807	Lung, poor differentiated adenocarcinoma with lymphoplasmatic infiltration	+	86 827	
239	GSM14916	Neonatal BJ foreskin primary fibroblasts	+	57 431	
240	GSM14917	Neonatal BJ foreskin primary fibroblasts immortalized by telomerase overexpression	-		
241	GSM14918	AT dermal fibroblasts	+	64 180	
242	GSM14919	AT dermal fibroblasts immortalized by telomerase overexpression	-		
243	GSM16892	Glomerular endothelial cell	+	68 978	
244	GSM23393	Cultured THP-1 cells, differentiating	x		3222 tags
245	GSM23394	Cultured THP-1 cells, proliferating	x		3519 tags
246	GSM32266	Microvascular endothelial cells exposed to sustained high shear stress	+	30 615	
247	GSM37211	Normal adrenal cortex	x		1 tag (-)
248	GSM37212	Primary pigmented nodular adrenocortical disease	x		1 tag (-)
249	GSM37337	Primary human bronchial epithelial cells	+	28 577	
250	GSM37339	Primary human bronchial epithelial cells stimulated with IL1 $\beta$ and TNF $\alpha$	-		
251	GSM37341	Primary human bronchial epithelial cells stimulated with heat-inactivated <i>P. aeruginosa</i>	-		
252	GSM41366	Cartilage chondrosarcoma grade 2	+	74 769	
253	GSM41367	Cartilage chondrosarcoma grade 2	+	93 446	
254	GSM41368	Cartilage chondrosarcoma grade 2	+	77 452	
255	GSM41369	Cartilage dedifferentiated chondrosarcoma metastasis	+	85 790	
256	GSM41370	Cartilage dedifferentiated chondrosarcoma metastasis	+	107 940	
257	GSM41371	Cartilage dedifferentiated chondrosarcoma metastasis	+	109 491	
258	GSM41372	Cartilage dedifferentiated chondrosarcoma metastasis	+	37 723	
259	GSM41373	Cartilage dedifferentiated chondrosarcoma metastasis	+	87 490	
260	GSM41374	Estrogen responsive cells purified from normal mammary epithelium	+	34 544	
261	GSM41375	ER negative breast cancer cell line	+	47 016	
262	GSM41376	ER negative breast cancer cell line	+	46 438	
263	GSM41377	ER negative breast cancer cell line	+	40 159	
264	GSM41378	Embryonic stem cell H9	+	150 657	
265	GSM41379	Eye lens	+	85 769	
266	GSM41380	Lung tumour, focal fibrosis and chronic inflammation	+	98 527	
267	GSM41381	Pelvis myxoid chondrosarcoma grade 2	+	83 241	
268	GSM41382	Cartilage chondrosarcoma grade 3	+	67 809	
269	GSM41383	Cartilage chondrosarcoma grade 1	+	33 043	
270	GSM43175	Bone marrow CD34+ stem/progenitor cells	+	99 488	
271	GSM48251	Cultured Schwann cells	+	42 870	
	<b>Subtotal</b>			<b>13 762 568</b>	
	<i>Homo sapiens, GPL6 (Sau3A I)</i>				
272	GSM10419	Kidney glomerulus	+	44 280	
273	GSM10423	Kidney proximal convoluted tubule	+	45 050	
274	GSM10424	Kidney proximal straight tubule	+	46 642	
275	GSM10425	Kidney medullary thick ascending limb	+	49 071	
276	GSM10426	Kidney cortical thick ascending limb	+	48 964	
277	GSM10427	Kidney distal convoluted tubule	+	59 134	
278	GSM10428	Kidney cortical collecting duct	+	53 758	
279	GSM10429	Kidney outer medullary collecting duct	+	67 433	
280	GSM32698	U937 cell line	+	24 692	
281	GSM32699	U937 differentiated cells	+	18 469	
282	GSM32700	Purified blood reticulocytes	x		1 tag (-)
	<b>Subtotal</b>			<b>457 493</b>	
	<b>Total</b>			<b>14 130 061</b>	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
<b><i>Mus musculus, GPL11 (NlaIII)</i></b>					
283	GSM55	E115 intact developing B6C3H forelimb	+	68 336	
284	GSM56	E115 intact developing B6C3H hindlimbs	+	68 372	
285	GSM580	R1 embryonic stem (ES) cells	+	137 832	*
286	GSM766	Medulloblastoma	+	43 131	
287	GSM767	Granular cell precursor cells	+	61 433	
288	GSM787	Primary granule cell precursor cells	+	87 657	
289	GSM788	Primary granule cell precursor cells with sonic hedgehog	-		
290	GSM1681	Heart	+	84 192	*
291	GSM1682	P19 embryonic carcinoma (EC) cells	+	64 952	*
292	GSM1683	P19 embryonic carcinoma (EC) cells, differentiation Day 3 + 05	+	50 983	*
293	GSM1684	P19 embryonic carcinoma (EC) cells, differentiation Day 3 + 30	+	53 022	*
294	GSM2415	Cerebellum	+	19 332	
295	GSM2575	Cartilage cell line (ATDC5 cells)	+	21 755	
296	GSM2576	BMP4-induced ATDC5 cells	-		
297	GSM3677	CD4+ Th1 clone (R22) from a primed A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
298	GSM3678	CD4+ Th2 clone (R24) from a primed A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
299	GSM3679	CD4+ Treg/Tr1-like clone from a naive A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
300	GSM3680	Draining lymph nodes, skin grafted anti-HY TCR transgenic female A1 × RAG-1-/- mice	-		
301	GSM3681	CD4+ Treg/Tr1-like clone from a naive A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
302	GSM3682	CD4+ Treg/Tr1-like H-Y + H2Ek specific line grown from the accepted male skin grafts of female A1(M) TCR transgenic mice	-		
303	GSM3683	CD4+ CD25-negative spleen cells	+	23 343	
304	GSM3684	CD4+ CD25+ spleen cells (CD3 X-linked)	-		
305	GSM3685	CD4+ CD25- spleen cells (CD3 X-linked)	-		
306	GSM3686	CD4+ CD25+ spleen cells	+	20 041	
307	GSM3687	Draining lymph nodes were pooled from normal CBA/Ca mice grafted with B10BR (multiple minor antigen mismatched) skin	×		5 411 tags
308	GSM3824	CD4+ Treg/Tr1-like H-Y + H2Ek specific line grown from the accepted male skin grafts of female A1(M) TCR transgenic mice in the presence of anti-CTLA4	-		
309	GSM3825	CD4+ Treg/Tr1-like clone from naive A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
310	GSM3826	CD4+ Th2 clone (R24) from a primed A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
311	GSM3827	CD4+ Th1 clone (R22) from a primed A1 × RAG-1-/- TCR transgenic mouse specific for H-Y + H2Ek	-		
312	GSM3828	Mouse thymoma cell line	+	19 605	
313	GSM3829	Embryonic stem cell line ESF 116	+	15 094	
314	GSM3830	Dendritic cells derived from ESF 116 stem cell line	+	30 696	
315	GSM3831	Dendritic cells derived from ESF 116 stem cell line treated with LPS	-		
316	GSM3832	Murine bone marrow derived dendritic cells (LPS treated)	-		
317	GSM3833	Mouse bone marrow derived dendritic cells	+	21 785	
318	GSM3834	Mouse bone marrow derived dendritic cells (IL-10 treated)	-		
319	GSM3835	Mouse bone marrow derived dendritic cells (IL-10 plus LPS treated)	-		
320	GSM3836	Mouse bone marrow derived dendritic cells (Vitamin D3 treated)	-		
321	GSM3837	Mouse splenic B cells	×		9 624 tags
322	GSM5050	Cerebellum	×		464 tags
323	GSM5051	Cerebellum of postnatal day 10 Lurcher (Lc +/-) mouse	×		813 tags
324	GSM5435	Adult mouse testis	+	81 474	
325	GSM5436	Fetal testis somatic cells	+	61 935	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
326	GSM7759	Primary mouse embryonic fibroblasts	+	64 882	*
327	GSM7764	Cardiac fibroblasts isolated from adult mouse heart	+	109 958	
328	GSM9194	Whole kidney	+	11 300	
329	GSM9195	Whole kidney, treated with AngII	-		
330	GSM11348	EG-1 cells	+	47 544	*
331	GSM11349	D3 embryonic stem (ES) cells	+	37 652	*
332	GSM12513	Cerebellum	x		7513 tags
333	GSM12540	Hippocampus: short attack latency (SAL) mice	+	31 122	
334	GSM12541	Hippocampus: long attack latency (LAL) mice	+	30 822	
335	GSM12757	ApoE3-Leiden (E3L) transgenic mice	-		
336	GSM12777	Liver	+	18 741	
337	GSM13195	6-week mouse total cornea	+	62 204	
338	GSM13196	Postnatal day 9 mouse total cornea	+	64 271	
339	GSM15116	Old mouse heart	+	25 664	*
340	GSM16635	Cerebellum	x		8507 tags
341	GSM17226	Cerebellum	+	18 360	
342	GSM17227	Retroperitoneal adipose tissue	+	45 938	
343	GSM17246	Cerebellum	+	17 934	
344	GSM17430	Cerebellum	+	16 319	
345	GSM23547	Heart	+	18 460	
346	GSM23548	Heart, treated with AngII	-		
347	GSM24251	Kidney (9- to 11-week)	x		1 tag (-)
348	GSM24255	Kidney (9- to 11-week), exposed to uranyl nitrate	-		
349	GSM24256	Kidney (25- to 28-week)	x		1 tag (-)
350	GSM24257	Kidney (25- to 28-week), exposed to uranyl nitrate	-		
351	GSM25974	Retroperitoneal adipose tissue of gonadectomized C57BL6 male mice	+	45 450	
352	GSM25975	Retroperitoneal adipose tissue of gonadectomized C57BL6 male mice injected with dihydrotestosterone	-		
353	GSM25976	Retroperitoneal adipose tissue of gonadectomized C57BL6 male mice injected with dihydrotestosterone	-		
354	GSM29039	Liver sinusoidal endothelial cells	+	32 830	
355	GSM29040	Liver sinusoidal endothelial cells, injured liver by carbon tetrachloride administration	-		
356	GSM30721	Granulosa cells isolated from immature mice (18–22 days) treated 48 h earlier with 5IU PMSG	-		
357	GSM30722	Granulosa cells isolated from immature mice (18–22 days) treated with 5IU PMSG followed 48 h later with 5IU hCG	-		
358	GSM34767	Total testis	+	24 714	
359	GSM34768	Total testis	+	51 592	
360	GSM35061	Normal sciatic nerve	+	10 521	
361	GSM35062	C22 sciatic nerve (CMT1A transgenic model)	-		
362	GSM38112	Skeletal muscle (m. gastrocnemius)	+	58 900	
363	GSM38113	Skeletal muscle (m. gastrocnemius) of adrenalectomized mice	+	149 087	
364	GSM38207	Skeletal muscle (m. gastrocnemius) of adrenalectomized mice, 3 h after an IP injection with cortisol	-		
365	GSM38208	Skeletal muscle (m. gastrocnemius) of adrenalectomized mice, 24 h after an IP injection with cortisol	-		
		<b>Subtotal</b>		<b>2 029 235</b>	
		<i>Mus musculus, GPL275 (Slc3A1)</i>			
366	GSM4871	Whole brain (8- to 12-week-old), C57BL/6 mouse	+	26 029	
367	GSM4873	Lateral striatum (8- to 12-week-old), C57BL/6 mouse	+	22 367	
368	GSM4874	Medial striatum (8- to 12-week-old) C57BL/6 mouse	+	23 615	
369	GSM4875	Nucleus accumbens (8- to 12-week-old), C57BL/6 mouse	+	24 547	
370	GSM4876	Somatosensory cortex (8- to 12-week-old), C57BL/6 mouse	+	21 938	
371	GSM10390	Cortical collecting duct, kidney	+	39 035	
372	GSM10391	Cortical collecting duct, kidney, treated with aldosterone	-		
373	GSM10392	Cortical collecting duct, kidney, treated with vasopressin	-		
374	GSM10393	Whole embryo (65 dpc)	+	26 803	
375	GSM10394	Whole embryo (65 dpc), Otx –/–	-		
376	GSM10430	Kidneys (8–10 weeks old)	+	14 394	

Supplemental Table 1. (Cont.)

N	SAGE library	Sample	Selection <sup>a</sup>	Tag <sup>b</sup>	Notes <sup>c</sup>
377	GSM23474	Kidney, outer medullary collecting duct, 3 days potassium-depleted diet	—		
378	GSM23478	Kidney, outer medullary collecting duct	+	19 684	
		<i>Subtotal</i>		<b>218 412</b>	
		<i>Total</i>		<b>2 247 647</b>	
		<i>Rattus norvegicus, GPL23 (NlaIII)</i>			
379	GSM581	Extraocular muscle	+	54 653	
380	GSM1679	Hippocampus (Wistar)	+	76 666	
381	GSM3893	Extraocular muscle in dark-reared	—		
382	GSM12532	Hippocampus (Sprague Dawley)	+	10 464	
383	GSM12533	Hippocampus (Sprague Dawley), status epilepticus	—		
384	GSM12542	Hippocampus: adrenalectomized Wistar rat (ADX)	—		
385	GSM12543	Hippocampus: ADX + low CORT Wistar rat	—		
386	GSM12544	Hippocampus: (ADX + low CORT) + acute high CORT Wistar rat	—		
387	GSM25890	Subcutaneous Swarm rat chondrosarcoma	+	89 778	
388	GSM25926	Femoral head cartilage, Sprague-Dawley	+	120 032	
389	GSM25927	Chondrosarcoma tibia tumour	+	101 578	
390	GSM25928	Subcutaneous Swarm rat chondrosarcoma tibia tumour	+	106 125	
391	GSM25929	Swarm rat chondrosarcoma lung tumour	+	108 719	
392	GSM29626	Striatum (Sprague-Dawley), METH treatment	—		
393	GSM45195	Normal lung	+	28 061	
394	GSM29627	Striatum (Sprague-Dawley)	+	22 086	
		<i>Total</i>		<b>718 162</b>	
		<i>Bos taurus, GPL223 (NlaIII)</i>			
395	GSM3036	Renal glomerular endothelial cells	+	36 837	
396	GSM3037	Aortic endothelial cells	+	26 408	
397	GSM11027	Madin-Darby bovine kidney (MDBK) cells	+	20 138	
398	GSM11028	BVDV2-infected MDBK cells	—		
399	GSM11383	Immature B cells isolated from ileal Peyer's patch	+	97 007	
400	GSM24604	Circulating $\gamma/\delta$ T cells	+	51 138	
401	GSM29563	Circulating CD4 T lymphocytes	+	97 053	
402	GSM39287	Circulating CD8 lymphocytes	+	104 711	
403	GSM48351	Granulosa cells from dominant follicles	+	52 622	
404	GSM48352	Granulosa cells from subordinate follicles	+	49 505	
405	GSM48353	Granulosa cells from cohort follicles	+	50 582	
		<i>Total</i>		<b>586 001</b>	
		<i>Sus scrofa, GPL1270 (NlaIII)</i>			
406	GSM24470	Day 11 pre-implantation embryos	+	42 272	
407	GSM24471	Day 12 pre-implantation embryos	+	42 344	
		<i>Total</i>		<b>84 616</b>	
		<b>Total</b>		<b>17 766 487</b>	

Indexes (GSM#) represent GEO database accession numbers for SAGE libraries.

<sup>a</sup> (+), selected for analysis; (—), genetically modified species or cell cultures; (×), SAGE libraries with a total number of reliable tags  $\leq 10\,000$  or with complete dataset unavailable.

<sup>b</sup> Number of tags subjected for analysis (with (A)<sub>10</sub> tags excluded).

<sup>c</sup> Number of tags for SAGE libraries with a total number of reliable tags  $\leq 10\,000$  is shown; (1 tag (—)), tags detected once in a library are not available via GEO database; Asterisks (\*) indicate SAGE libraries constructed by author and co-workers and subjected to 'clean-up' procedure (Anisimov & Sharov, 2004).

Supplemental Table 2. Individual SAGE tags matching mammal mitochondrial genomes

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
<i>Homo sapiens NlaIII</i>						
1	CAAGCATCCC	<i>mt-Rnr1</i>	2024	0·20%	<b>4·30%</b>	
2	AGGTGGCAAG	<i>mt-Rnr1</i>	819	0·08%	1·74%	
3	GTAAGTGTAC	<i>mt-Rnr1</i>	484	0·05%	1·03%	
4	AAAACATTCT	<i>mt-Rnr2</i>	2349	0·23%	<b>4·99%</b>	
5	CTCATAAGGA	<i>mt-Rnr2</i>	1407	0·14%	<b>2·99%</b>	
6	TTAACCGGCC	<i>mt-Rnr2</i>	786	0·08%	1·67%	
7	ACACAGCAAG	<i>mt-Rnr2</i>	736	0·07%	1·56%	
8	CTAAGACTTC	<i>mt-Rnr2</i>	4140	0·41%	<b>8·80%</b>	
9	GCCAACCTCC	<i>mt-Nd1</i>	154	0·02%	0·33%	
	ACCAACCTCC	<i>mt-Nd1</i>	<1	<0·01%	<0·01%	
10	ACCCTTGGCC	<i>mt-Nd1</i>	1420	0·14%	<b>3·02%</b>	
11	CTAGCTTTA	<i>mt-Nd2</i>	203	0·02%	0·43%	
12	ACAAAAACTA	<i>mt-Nd2</i>	251	0·03%	0·53%	
13	ACTAACACCC	<i>mt-Nd2</i>	1495	0·15%	<b>3·18%</b>	
14	AGCTGGAGTC	<i>mt-Co1</i>	93	0·01%	0·20%	
15	CATTTGTAAT	<i>mt-Co1</i>	420	0·04%	0·89%	
16	AAACATCCTA	<i>mt-Co1</i>	174	0·02%	0·37%	
17	ATTTGAGAAG	<i>mt-Co1</i>	1510	0·15%	<b>3·21%</b>	
18	ACTTTTCAA	<i>tRNA</i>	2996	0·30%	<b>6·37%</b>	
19	CAGCGCAAGT	<i>mt-Co2</i>	4	<0·01%	<0·01%	
20	ATCACGCCCT	<i>mt-Co2</i>	373	0·04%	0·79%	
21	AGCTGTCCCC	<i>mt-Co2</i>	149	0·01%	0·32%	
22	CCCATCGTCC	<i>mt-Co2</i>	5733	0·57%	<b>12·19%</b>	
23	GCCATCCCCT	<i>mt-Atp8</i>	269	0·03%	0·57%	
24	CACCTAATTG	<i>mt-Atp6</i>	4162	0·42%	<b>8·85%</b>	
25	CCTATCATAT	<i>mt-Co3</i>	6	<0·01%	0·01%	
26	ACCCCTAACAA	<i>mt-Co3</i>	57	<0·01%	0·12%	
27	TGATTTCACT	<i>mt-Co3</i>	2413	0·24%	<b>5·13%</b>	
28	AGCCCTACAA	<i>mt-Nd3</i>	2884	0·29%	<b>6·13%</b>	
29	ACTTCCAAA	<i>mt-Nd4</i>	356	0·04%	0·76%	
30	GCAAGCCAAC	<i>mt-Nd4</i>	435	0·04%	0·92%	
31	TCGAAGCCCC	<i>mt-Nd4</i>	850	0·08%	1·81%	
32	TTCATACACC	<i>mt-Nd4</i>	3948	0·39%	<b>8·39%</b>	
33	GCTTCTCAA	<i>tRNA</i>	43	<0·01%	0·09%	
34	CACACTACTA	<i>mt-Nd5</i>	11	<0·01%	0·02%	
35	TGCCTAGACC	<i>mt-Nd5</i>	37	<0·01%	0·08%	
36	GTCCATCATA	<i>mt-Nd5</i>	72	<0·01%	0·15%	
37	ATTTATCCTA	<i>mt-Nd5</i>	11	<0·00%	0·02%	
38	AGACCCACAA	<i>mt-Nd5</i>	296	0·03%	0·63%	
39	CCTCAGGATA	<i>mt-Nd6</i>	629	0·06%	1·34%	
40	ATGAAACTTC	<i>mt-Cytb</i>	117	<0·01%	0·25%	
41	CACTACTCAC	<i>mt-Cytb</i>	988	0·10%	<b>2·10%</b>	
42	GGGAAGCAGA	<i>D-Loop</i>	374	0·04%	0·79%	
43	AATATTGTAC	<i>D-Loop</i>	22	<0·01%	0·05%	
44	CTTACAAGCA	<i>D-Loop</i>	49	<0·01%	0·10%	
45	GATGACCCCC	<i>D-Loop</i>	121	0·01%	0·26%	
46	CATTTGGTAT	<i>D-Loop</i>	100	0·01%	0·21%	
	Total		47034	4·70%	100·00%	
<i>Homo sapiens Sau3A I</i>						
1	ACAGGTCTAT	<i>tRNA</i>	344	0·03%	0·43%	
2	AAAAGGGACA	<i>mt-Rnr1</i>	1747	0·17%	<b>2·17%</b>	
3	ACCCCTCCCC	<i>mt-Rnr1</i>	2387	0·24%	<b>2·97%</b>	
4	AACCTCACCA	<i>mt-Rnr1</i>	4748	0·47%	<b>5·91%</b>	
5	AAAACACTGA	<i>mt-Rnr2</i>	2	<0·01%	<0·01%	
6	CAATAACTTG	<i>mt-Rnr2</i>	705	0·07%	0·88%	
7	AGGACATCCC	<i>mt-Rnr2</i>	4275	0·43%	<b>5·32%</b>	
8	TGAGTTCAGA	<i>mt-Rnr2</i>	5587	0·56%	<b>6·95%</b>	
9	AGGGTGAGCA	<i>mt-Nd1</i>	2218	0·22%	<b>2·76%</b>	
10	GGCGCACTGC	<i>mt-Nd1</i>	7505	0·75%	<b>9·34%</b>	
11	CGTCCTAAC	<i>mt-Co1</i>	3135	0·31%	<b>3·90%</b>	
12	TGCTGCAGTG	<i>mt-Co1</i>	9161	0·92%	<b>11·40%</b>	

Supplemental Table 2. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
13	ACGCCCTCAT	<i>mt-Co2</i>		2175	0·22 %	<b>2·71 %</b>
14	CCTCCCTTAC	<i>mt-Co2</i>		6439	0·64 %	<b>8·01 %</b>
15	ATTCTATTTC	<i>mt-Atp6</i>		180	0·02 %	0·22 %
16	CCCACCTCCA	<i>mt-Atp6</i>		1994	0·20 %	<b>2·48 %</b>
17	TCTTATACTA	<i>mt-Atp6</i>		7245	0·72 %	<b>9·02 %</b>
18	TAGAAATTGC	<i>mt-Nd3</i>		5585	0·56 %	<b>6·95 %</b>
19	AAATATCACT	<i>mt-Nd4</i>		8122	0·81 %	<b>10·11 %</b>
20	CTCCCGAACATC	<i>mt-Nd6</i>	Variant	1650	0·16 %	<b>2·05 %</b>
	CTCCCGAATG	<i>mt-Nd6</i>		ND	0·00 %	0·00 %
21	CTCCAAATCA	<i>mt-Cytb</i>		279	0·03 %	0·35 %
22	ATTCTCTAC	<i>mt-Cytb</i>		335	0·03 %	0·42 %
23	AAACAACCCC	<i>mt-Cytb</i>		1558	0·16 %	<b>1·94 %</b>
24	CGTCCCTAAC	<i>mt-Cytb</i>		2969	0·30 %	<b>3·70 %</b>
	Total			80 348	8·03 %	100·00 %
		<i>Mus musculus NlaIII</i>				
1	CAAACCTCCA	<i>mt-Rnr1</i>		712	0·07 %	1·77 %
2	ACCAATGAAC	<i>tRNA</i>		389	0·04 %	0·97 %
3	AACGGCTAAA	<i>mt-Rnr2</i>		772	0·08 %	1·92 %
4	AATATTTCAA	<i>mt-Nd2</i>		30	<0·01 %	0·07 %
5	ACAAAAAAATT	<i>mt-Nd2</i>		43	<0·01 %	0·11 %
6	AGGAGGACTT	<i>mt-Nd2</i>		1585	0·16 %	<b>3·95 %</b>
7	AATATCACCT	<i>tRNA</i>		70	<0·01 %	0·17 %
8	CTTTGTTAT	<i>mt-Co1</i>		120	0·01 %	0·30 %
9	CAGGAGCATC	<i>mt-Co1</i>		168	0·02 %	0·42 %
10	AAACCCCCAG	<i>mt-Co1</i>		658	0·07 %	1·64 %
11	TAGTTACTTA	<i>mt-Co1</i>		706	0·07 %	1·76 %
12	AGCAAAAGCC	<i>mt-Co1</i>		615	0·06 %	1·53 %
13	AAACACTGTC	<i>mt-Co1</i>		211	0·02 %	0·52 %
14	ATCTTATAAA	<i>mt-Co1</i>		117	0·01 %	0·29 %
15	GCTGCCCTCC	<i>mt-Co1</i>		11 248	1·12 %	<b>28·02 %</b>
16	ATCACACACT	<i>mt-Co2</i>		268	0·03 %	0·67 %
17	AGCAGTCCCC	<i>mt-Co2</i>		4191	0·42 %	10·44 %
18	ATTATTCACA	<i>mt-Atp8</i>		50	0·01 %	0·13 %
19	AACCCTAATA	<i>mt-Atp6</i>		486	0·05 %	1·21 %
20	ATAATACATA	<i>mt-Atp6</i>		6612	0·66 %	<b>16·47 %</b>
21	CATATCACAT	<i>mt-Co3</i>		5	<0·01 %	0·01 %
22	ACCATTAAC	<i>mt-Co3</i>		89	<0·01 %	0·22 %
23	ATCTAGGAGG	<i>mt-Co3</i>		116	0·01 %	0·29 %
24	AGCTCATCAT	<i>mt-Co3</i>		168	0·02 %	0·42 %
25	GCTACTGGAT	<i>mt-Co3</i>		5	<0·01 %	0·01 %
26	TAATTATTGG	<i>mt-Co3</i>		157	0·02 %	0·39 %
27	ATACTGACAT	<i>mt-Co3</i>		6508	0·65 %	<b>16·21 %</b>
28	AGCAATTCAA	<i>mt-Nd3</i>		1437	0·14 %	<b>3·58 %</b>
29	TAGGAACCCCT	<i>mt-Nd4</i>		41	<0·01 %	0·10 %
30	ATCTAACAAAC	<i>mt-Nd4</i>		12	<0·01 %	0·03 %
31	CATAATAGCA	<i>mt-Nd4</i>		10	<0·01 %	0·02 %
32	TTGAAGCTCC	<i>mt-Nd4</i>		145	0·01 %	0·36 %
33	AAGCTTCATA	<i>mt-Nd4</i>		30	<0·01 %	0·08 %
34	GCCTCACATC	<i>mt-Nd4</i>		74	<0·01 %	0·19 %
35	GCCCGAGGAC	<i>mt-Nd4</i>		45	<0·01 %	0·11 %
36	ATGACTGATA	<i>mt-Nd4</i>		2974	0·30 %	<b>7·41 %</b>
37	GCTTTCTTAC	<i>tRNA</i>		151	0·02 %	0·38 %
38	ATCAATTATA	<i>mt-Nd5</i>		1	<0·01 %	<0·01 %
39	ATATATACAC	<i>mt-Nd5</i>		6	<0·01 %	0·01 %
40	CTTATCCTCA	<i>mt-Nd5</i>		61	<0·01 %	0·15 %
41	AGAACTTCAA	<i>mt-Nd5</i>		25	<0·01 %	0·06 %
42	ACTACCATCA	<i>mt-Nd5</i>		267	0·03 %	0·67 %
43	CCTAGTAATC	<i>mt-Nd5</i>		114	0·01 %	0·29 %
44	ATTTTTAAAAA	<i>mt-Nd5</i>		139	0·01 %	0·35 %
45	AAAAATCATC	<i>tRNA</i>		859	0·09 %	2·14 %
46	ATGAAACTTT	<i>mt-Cytb</i>		63	<0·01 %	0·16 %
47	TCGGACGAGG	<i>mt-Cytb</i>		137	0·01 %	0·34 %

Supplemental Table 2. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
48	AGGACAAATA	<i>mt-Cytb</i>		1932	0·19 %	<b>4·81 %</b>
49	TCTTGATAGT	<i>tRNA</i>		4	<0·01 %	0·01 %
50	AATATTATCT	<i>D-Loop</i>		45	<0·01 %	0·11 %
51	ACCAACATAA	<i>D-Loop</i>		3	<0·01 %	0·01 %
52	CATTTGGTAT	<i>D-Loop</i>		54	0·01 %	0·14 %
53	AAAGGACAGC	<i>D-Loop</i>		57	0·01 %	0·14 %
54	CTTGTAGAC	<i>D-Loop</i>		32	<0·01 %	0·08 %
55	TTCCGTGAAC	<i>D-Loop</i>		229	0·02 %	0·57 %
	<i>Total</i>			40 142	4·01 %	100·00 %
		<i>Mus musculus Sau3A I</i>				
1	CAAAAAGATA	<i>mt-Rnr2</i>		1619	0·16 %	1·42 %
2	AACGGACCAA	<i>mt-Rnr2</i>		698	0·07 %	0·61 %
3	AGGACATCCC	<i>mt-Rnr2</i>		937	0·09 %	0·82 %
4	TGAGTTCAGA	<i>mt-Rnr2</i>		3219	0·32 %	<b>2·82 %</b>
5	AGGATGAGCC	<i>mt-Nd1</i>		174	0·02 %	0·15 %
6	CTACTCTCTA	<i>mt-Nd1</i>		319	0·03 %	0·28 %
7	CGAGCATCTT	<i>mt-Nd1</i>		1662	0·17 %	1·46 %
8	AACTTATACA	<i>mt-Nd1</i>		13 672	1·37 %	<b>11·97 %</b>
9	AACTGAAGCA	<i>mt-Nd2</i>		395	0·04 %	0·35 %
10	CCACTGCACA	<i>mt-Nd2</i>		5402	0·54 %	<b>4·73 %</b>
11	CGTACTTATT	<i>mt-Co1</i>		155	0·02 %	0·14 %
12	CCGCTGGAGG	<i>mt-Co1</i>		660	0·07 %	0·58 %
13	TCCAGCTATA	<i>mt-Co1</i>		1149	0·11 %	1·01 %
14	ATTTATTTC	<i>mt-Co1</i>		2082	0·21 %	1·82 %
15	TTTATAATT	<i>mt-Co1</i>		7478	0·75 %	<b>6·55 %</b>
16	AATAATCTAT	<i>tRNA</i>		1165	0·12 %	1·02 %
17	ACACACTAAT	<i>mt-Co2</i>		1258	0·13 %	1·10 %
18	TAACCATAGC	<i>mt-Co2</i>		2968	0·30 %	<b>2·60 %</b>
19	TGCTTCATAA	<i>mt-Co2</i>		34 828	3·48 %	<b>30·50 %</b>
20	AACAAATCTC	<i>mt-Atp6</i>		9929	0·99 %	<b>8·70 %</b>
21	TAGGAGGCTG	<i>mt-Co3</i>		666	0·07 %	0·58 %
22	AACATTCTT	<i>mt-Co3</i>		5311	0·53 %	<b>4·65 %</b>
23	TTACTCCCTT	<i>mt-Co3/tRNA</i>		9	<0·01 %	<0·01 %
24	TAACAACTTA	<i>mt-Nd4</i>		181	0·02 %	0·16 %
25	CACAGCCGTA	<i>mt-Nd4</i>		233	0·02 %	0·20 %
26	AAACTTTACC	<i>mt-Nd4</i>		6433	0·64 %	<b>5·63 %</b>
27	AATTATACAA	<i>mt-Nd5</i>		332	0·03 %	0·29 %
28	TGGTTAGAAA	<i>mt-Nd5</i>		174	0·02 %	0·15 %
29	ACCCAGCTAC	<i>mt-Nd6</i>		733	0·07 %	0·64 %
30	CCCAAGTCTC	<i>mt-Nd6</i>		323	0·03 %	0·28 %
31	CACCAAACCC	<i>mt-Nd6</i>		861	0·09 %	0·75 %
32	ATATACATT	<i>mt-Cytb</i>		220	0·02 %	0·19 %
33	AAACAACCCA	<i>mt-Cytb</i>		8228	0·82 %	<b>7·21 %</b>
34	TTCTCTCTC	<i>tRNA</i>		438	0·04 %	0·38 %
35	AATTCTAGTA	<i>D-Loop</i>		267	0·03 %	0·23 %
	<i>Total</i>			114 178	11·42 %	100·00 %
		<i>Rattus norvegicus NlaIII</i>				
1	CAACACATCCA	<i>mt-Rnr1</i>		2755	0·28 %	<b>3·65 %</b>
2	AATCAACCCG	<i>mt-Rnr2</i>		4504	0·45 %	<b>5·96 %</b>
3	GCCTTCCTCA	<i>mt-Nd1</i>	Variant	949	0·09 %	1·26 %
	GGCTTCCTCA	<i>mt-Nd1</i>		5	<0·01 %	<0·01 %
	GCCCTCCTCA	<i>mt-Nd1</i>		4	<0·01 %	<0·01 %
	GGCCTCCTCA	<i>mt-Nd1</i>		ND	0·00 %	0·00 %
4	ACAAAAAAATT	<i>mt-Nd2</i>		375	0·04 %	0·50 %
5	AAATAAAACT	<i>mt-Nd2</i>		1719	0·17 %	<b>2·28 %</b>
6	ATAATCACCT	<i>tRNA</i>		156	0·02 %	0·21 %
7	CATTCGTAAT	<i>mt-Co1</i>		127	0·01 %	0·17 %
8	CTGGAGCATC	<i>mt-Co1</i>	Variant	177	0·02 %	0·23 %
	CTGGGGCATC	<i>mt-Co1</i>		937	0·09 %	1·24 %
	CTGGAGTATC	<i>mt-Co1</i>		ND	0·00 %	0·00 %
	CTGGGGTATC	<i>mt-Co1</i>		ND	0·00 %	0·00 %
9	TAGTTACCTA	<i>mt-Co1</i>		212	0·02 %	0·28 %

Supplemental Table 2. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
10	GAGGAATAT	<i>mt-Co1</i>		86	<0·01 %	0·11 %
11	ATACATACTA	<i>mt-Co1</i>		247	0·02 %	0·33 %
12	AGCAAAAGCC	<i>mt-Co1</i>		376	0·04 %	0·50 %
13	AAATACAGTC	<i>mt-Co1</i>		145	0·01 %	0·19 %
14	ATTGAGAAG	<i>mt-Co1</i>		330	0·03 %	0·44 %
15	GATGCCCGCC	<i>mt-Co1</i>		15 808	1·58 %	<b>20·92 %</b>
16	GCTTACCCAT	<i>tRNA/mt-Co2</i>		ND	0·00 %	0·00 %
17	ACCACACCCT	<i>mt-Co2</i>		495	0·05 %	0·66 %
18	AGCCGTCCCT	<i>mt-Co2</i>	Variant	593	0·06 %	0·79 %
	AGCCATCCCT	<i>mt-Co2</i>		5964	0·60 %	<b>7·89 %</b>
19	CCACAACTAG	<i>tRNA/mt-Atp8</i>		1	<0·01 %	<0·01 %
20	ATTATTACCA	<i>mt-Atp8</i>		43	<0·01 %	0·06 %
21	ATAACACATA	<i>mt-Atp6</i>		11 203	1·12 %	<b>14·83 %</b>
22	CATACCATAT	<i>mt-Co3</i>		ND	0·00 %	0·00 %
23	ACCACTAACAA	<i>mt-Co3</i>		163	0·02 %	0·22 %
24	AGCCCACATCAC	<i>mt-Co3</i>		335	0·03 %	0·44 %
25	GCCTCCACGT	<i>mt-Co3</i>		372	0·04 %	0·49 %
26	ATACTGACAC	<i>mt-Co3</i>		11 170	1·12 %	<b>14·79 %</b>
27	AGCGATTCAA	<i>mt-Nd3</i>		1855	0·19 %	<b>2·45 %</b>
28	ACTCTCAGGCC	<i>mt-Nd4</i>		897	0·09 %	1·19 %
29	GATCCAACAC	<i>mt-Nd4</i>		ND	0·00 %	0·00 %
30	TATAATAGCA	<i>mt-Nd4</i>		42	<0·01 %	0·06 %
31	GGAGCTACAA	<i>mt-Nd4</i>	Variant	153	0·02 %	0·20 %
	GGAGCCACAA	<i>mt-Nd4</i>		ND	0·00 %	0·00 %
32	ATGACTATTAA	<i>mt-Nd4</i>		2300	0·23 %	<b>3·04 %</b>
33	CACCCATACC	<i>tRNA</i>		1307	0·13 %	1·73 %
34	ATCAATCATA	<i>mt-Nd5</i>	Variant	ND	0·00 %	0·00 %
	ATCAATTATA	<i>mt-Nd5</i>		2	<0·01 %	<0·01 %
35	ATATATACAC	<i>mt-Nd5</i>		32	<0·01 %	0·04 %
36	ACTCCCATCA	<i>mt-Nd5</i>		103	0·01 %	0·14 %
37	CATTCTTCAA	<i>mt-Nd5</i>		52	<0·01 %	0·07 %
38	ACAAAACCCAC	<i>mt-Nd5</i>		565	0·06 %	0·75 %
39	AAAAATCATC	<i>tRNA</i>		1201	0·12 %	1·59 %
40	ATGAAACTTC	<i>mt-Cytb</i>		68	0·01 %	0·09 %
41	TGGGACGAGG	<i>mt-Cytb</i>		84	0·01 %	0·11 %
42	GGCTATGTAC	<i>mt-Cytb</i>		14	<0·01 %	0·02 %
43	AGGACAAATA	<i>mt-Cytb</i>		294	0·03 %	0·39 %
44	AATCGGAGGC	<i>mt-Cytb</i>		7093	0·71 %	<b>9·39 %</b>
45	TAATATATAT	<i>D-Loop</i>		79	<0·01 %	0·10 %
46	TCTATTCTCG	<i>D-Loop</i>		ND	0·00 %	0·00 %
47	CACCATTAAG	<i>D-Loop</i>		71	<0·01 %	0·09 %
48	GATCAACATA	<i>D-Loop</i>		ND	0·00 %	0·00 %
49	AAGTCAGCA	<i>D-Loop</i>		35	<0·01 %	0·05 %
50	TTTGTAAGAC	<i>D-Loop</i>		47	<0·01 %	0·06 %
	Total			75 548	7·55 %	100·00 %
		<i>Bos Taurus NlaIII</i>				
1	CTCACACATA	<i>D-Loop</i>		160	0·02 %	0·85 %
2	GACATTACAG	<i>D-Loop</i>		66	<0·01 %	0·35 %
3	CAAGCATCTA	<i>mt-Rnr1</i>		111	0·01 %	0·59 %
4	ATAAAATAAA	<i>mt-Rnr1</i>		563	0·06 %	<b>3·00 %</b>
5	AAGCACGCAC	<i>mt-Rnr1</i>		44	<0·01 %	0·23 %
6	AGAGGAGACA	<i>mt-Rnr1</i>		40	<0·01 %	0·21 %
7	CCTAACAGAGC	<i>mt-Rnr2</i>		507	0·05 %	<b>2·70 %</b>
8	AGTTGGTAGT	<i>mt-Rnr2</i>		423	0·04 %	<b>2·25 %</b>
9	TGAATTCCCC	<i>mt-Nd1</i>		71	<0·01 %	0·38 %
10	GCCTCTAGCA	<i>mt-Nd1</i>		332	0·03 %	1·77 %
11	TGACACGTAT	<i>mt-Nd1</i>		1292	0·13 %	<b>6·89 %</b>
12	ACAAAAACTA	<i>mt-Nd2</i>		39	<0·01 %	0·21 %
13	AAATAAAACA	<i>mt-Nd2</i>		136	0·01 %	0·73 %
14	TTCATTAACC	<i>tRNA/mt-Co1</i>		14	<0·01 %	0·07 %
15	CAGGAGCTTC	<i>mt-Co1</i>		624	0·06 %	<b>3·33 %</b>
16	GAGGTAATAT	<i>mt-Co1</i>		74	<0·01 %	0·39 %

Supplemental Table 2. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
17	AGCCAAAATC	<i>mt-Co1</i>		211	0·02 %	1·12 %
18	CCTCGACGAT	<i>mt-Co1</i>		3021	0·30 %	<b>16·10 %</b>
19	ACCACACGCT	<i>mt-Co2</i>		128	0·01 %	0·68 %
20	AGCTGTGCC	<i>mt-Co2</i>		2588	0·26 %	<b>13·79 %</b>
21	CCCATTGTCC	<i>mt-Co2</i>		ND	0·00 %	0·00 %
22	CCGCAACTAG	<i>tRNA/mt-Atp8</i>		1	<0·01 %	<0·01 %
23	ACTGACAATG	<i>mt-Atp8</i>		289	0·03 %	1·54 %
24	AACATTAATA	<i>mt-Atp6</i>		67	<0·01 %	0·36 %
25	ACAACACATA	<i>mt-Atp6</i>		3904	0·39 %	<b>20·80 %</b>
26	CTTATCATAT	<i>mt-Co3</i>		3	<0·01 %	0·01 %
27	TGATTCACT	<i>mt-Co3</i>		900	0·09 %	<b>4·80 %</b>
28	AGCCTCACAA	<i>mt-Nd3</i>		1097	0·11 %	<b>5·85 %</b>
29	GAACTAATCT	<i>mt-Nd4</i>		30	<0·01 %	0·16 %
30	TATAATAGCT	<i>mt-Nd4</i>		9	<0·01 %	0·05 %
31	ATCTAACATT	<i>mt-Nd4</i>		6	<0·01 %	0·03 %
32	CTAATTATAA	<i>mt-Nd4</i>		112	0·01 %	0·59 %
33	ATCTATTATA	<i>mt-Nd5</i>		ND	0·00 %	0·00 %
34	GTTCCCTAACCA	<i>mt-Nd5</i>		38	<0·01 %	0·20 %
35	CCATTCCACCA	<i>mt-Nd5</i>		362	0·04 %	1·93 %
36	GAATCTAACCC	<i>tRNA</i>		1	<0·01 %	<0·01 %
37	ACTAATGATA	<i>tRNA</i>		300	0·03 %	1·60 %
38	ATGAAATTTC	<i>mt-Cytb</i>		35	<0·01 %	0·19 %
39	AAATATTGGA	<i>mt-Cytb</i>		19	<0·01 %	0·10 %
40	AGGACAAATA	<i>mt-Cytb</i>		91	<0·01 %	0·48 %
41	AATTGGAGGA	<i>mt-Cytb</i>		629	0·06 %	<b>3·35 %</b>
42	CATATAAGCA	<i>D-Loop</i>		207	0·02 %	1·10 %
43	ACCTCTATAG	<i>D-Loop</i>		133	0·01 %	0·71 %
44	CCGCGTGAAA	<i>D-Loop</i>		87	<0·01 %	0·46 %
<i>Total</i>				18 764	1·88 %	100·00 %
<i>Sus scrofa NlaIII</i>						
1	CATATAAGCA	<i>D-Loop</i>		35	<0·01 %	0·11 %
2	TACATATTAT	<i>D-Loop</i>		615	0·06 %	1·93 %
3	TCAAATAACT	<i>D-Loop</i>		ND	0·00 %	0·00 %
4	CATATCACCA	<i>D-Loop</i>		ND	0·00 %	0·00 %
5	CCGCGTGAAA	<i>D-Loop</i>		83	<0·01 %	0·26 %
6	CTCACACATA	<i>D-Loop</i>		35	<0·01 %	0·11 %
7	GCCGTCAAAG	<i>D-Loop</i>		12	<0·01 %	0·04 %
8	ATCCGGCACG	<i>D-Loop</i>		24	<0·01 %	0·07 %
9	CAAGTATCCG	<i>mt-Rnr1</i>		47	<0·01 %	0·15 %
10	AACGAAAGTT	<i>mt-Rnr1</i>		733	0·07 %	<b>2·30 %</b>
11	AGTATATCCA	<i>mt-Rnr1</i>		ND	0·00 %	0·00 %
12	AAGCACGCAC	<i>mt-Rnr1</i>		24	<0·01 %	0·07 %
13	TAGTAATAAA	<i>mt-Rnr1</i>		24	<0·01 %	0·07 %
14	CAAGAAGAGA	<i>mt-Rnr1</i>		189	0·02 %	0·59 %
15	AGCAGTTAA	<i>mt-Rnr2</i>		ND	0·00 %	0·00 %
16	GACTAGCAAT	<i>mt-Rnr2</i>		248	0·02 %	0·78 %
17	TTCATAATT	<i>tRNA/mt-Nd1</i>		12	<0·01 %	0·04 %
18	TTCATTATTG	<i>mt-Nd1</i>		47	<0·01 %	0·15 %
19	TCAAGCCTAG	<i>mt-Nd1</i>		1548	0·15 %	<b>4·86 %</b>
20	GCCCTAGCCA	<i>mt-Nd2</i>		ND	0·00 %	0·00 %
21	ACAAAAAACTA	<i>mt-Nd2</i>		225	0·02 %	0·70 %
22	AAACAAAATA	<i>mt-Nd2</i>		ND	0·00 %	0·00 %
23	CCAACACTCA	<i>mt-Nd2</i>		2116	0·21 %	<b>6·64 %</b>
24	ATATTCCACCA	<i>tRNA</i>		ND	0·00 %	0·00 %
25	CCTTTGTAAT	<i>mt-Co1</i>		83	<0·01 %	0·26 %
26	CAGGGGCTTC	<i>mt-Co1</i>		ND	0·00 %	0·00 %
27	ATACATATTA	<i>mt-Co1</i>		898	0·09 %	<b>2·82 %</b>
28	AGCAAAAATT	<i>mt-Co1</i>		201	0·02 %	0·63 %
29	AAATACTATT	<i>mt-Co1</i>		1111	0·11 %	<b>3·49 %</b>
30	AGCCGTCCCCA	<i>mt-Co2</i>		ND	0·00 %	0·00 %
31	CCCATTGTAC	<i>mt-Co2</i>		12 235	1·22 %	<b>38·38 %</b>
32	ATTCAATTACA	<i>mt-Atp8</i>		1158	0·12 %	<b>3·63 %</b>

Supplemental Table 2. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Average tpm <sup>c</sup>	% to Total <sup>d</sup>	% to Mt <sup>e</sup>
33	CATACCACAT	<i>mt-Co3</i>		24	<0·01 %	0·07 %
34	ACCACTTACC	<i>mt-Co3</i>		2422	0·24 %	<b>7·60 %</b>
35	AGCATCCCAA	<i>mt-Nd3</i>		1076	0·11 %	<b>3·37 %</b>
36	AATATCTAAA	<i>mt-Nd4</i>		47	<0·01 %	0·15 %
37	ACTCCTCCCC	<i>mt-Nd4</i>		378	0·04 %	1·19 %
38	CATCATAGCC	<i>mt-Nd4</i>		59	<0·01 %	0·19 %
39	TAGAAGCCCC	<i>mt-Nd4</i>		95	<0·01 %	0·30 %
40	CTTCCATAT	<i>mt-Nd4</i>		95	<0·01 %	0·30 %
41	ATGACTAATA	<i>mt-Nd4</i>		130	0·01 %	0·41 %
42	ATCCAACATC	<i>mt-Nd4</i>		1513	0·15 %	<b>4·75 %</b>
43	CTTCCACACT	<i>tRNA</i>		ND	0·00 %	0·00 %
44	ATCAATTATA	<i>mt-Nd5</i>		24	<0·01 %	0·07 %
45	ATTCTTAACC	<i>mt-Nd5</i>		ND	0·00 %	0·00 %
46	AGATCTTCAA	<i>mt-Nd5</i>		ND	0·00 %	0·00 %
47	CACGCCCTTCT	<i>mt-Nd5</i>		756	0·08 %	<b>2·37 %</b>
48	GAATTAAACC	<i>tRNA</i>		ND	0·00 %	0·00 %
49	AAAAATCATC	<i>tRNA</i>		768	0·08 %	<b>2·41 %</b>
50	ATGAAACTTC	<i>mt-Cytb</i>		59	<0·01 %	0·19 %
51	CAAACGGAGC	<i>mt-Cytb</i>		ND	0·00 %	0·00 %
52	AAACATTGGA	<i>mt-Cytb</i>		236	0·02 %	0·74 %
53	AATTGGAGGA	<i>mt-Cytb</i>		2494	0·25 %	<b>7·82 %</b>
<i>Total</i>				31 878	3·19 %	100·00 %

SAGE tags are sorted based on their position in mitochondrial genome.

<sup>a</sup> Ribosomal RNA mitochondrial genes and transfer RNAs sequences are shown. (/) SAGE tag is located in the boundary of two sequences.

<sup>b</sup> SNPs single nucleotide polymorphisms and/or genetic variations within SAGE tags (located for *Homo sapiens* and *Rattus norvegicus* mitochondrial genomes only).

<sup>c</sup> Average tag per million (tpm) values are calculated for complete datasets for individual anchoring enzymes/species. ND, not detected.

<sup>d</sup> Expression of individual SAGE tags (% to the total number of analysed tags).

<sup>e</sup> Expression of individual SAGE tags (% to the total number of tags matching mitochondrial genome). Boldface denotes SAGE tags accounting for over >2% of all tags matching the mitochondrial genome.

Supplemental Table 3. Relative size of individual mammalian mitochondrial genome sequences

Sequence	<i>Homo sapiens</i>	<i>Mus musculus</i>	<i>Rattus norvegicus</i>	<i>Bos taurus</i>	<i>Sus scrofa</i>
<i>tRNA</i> (1)	71	69	67	69	70
<b><i>mt-Rnr1</i></b>	954	955	958	955	960
<i>tRNA</i> (1)	69	69	68	67	68
<b><i>mt-Rnr2</i></b>	1558	1582	1571	1571	1571
<i>tRNA</i> (1)	77	75	75	77	77
<b><i>mt-Nd1</i></b>	957	957	957	957	957
<i>tRNA</i> (3)	206	206	207	208	208
<b><i>mt-Nd2</i></b>	1044	1038	1041	1044	1044
<i>tRNA</i> (5)	390	376	378	377	380
<b><i>mt-Co1</i></b>	1542	1545	1545	1547	1545
<i>tRNA</i> (2)	140	140	138	140	147
<b><i>mt-Co2</i></b>	684	684	684	684	688
<i>tRNA</i> (1)	96	69	68	71	68
<b><i>mt-Atp8</i></b>	1624	1625	1626	1622	1625
<b><i>mt-Atp6</i></b>					
<b><i>mt-Co3</i></b>					
<i>tRNA</i> (1)	69	68	67	72	69
<b><i>mt-Nd3</i></b>	345	348	348	358	346
<i>tRNA</i> (1)	66	71	71	58	70
<b><i>mt-Nd4l</i></b>	1667	1668	1668	1668	1668
<b><i>mt-Nd4</i></b>					
<i>tRNA</i> (3)	200	197	198	202	198
<b><i>mt-Nd5</i></b>	1812	2329	2326	2332	2332
<b><i>mt-Nd6</i></b>	525				
<i>tRNA</i> (1)	73	74	74	73	75
<b><i>mt-Cytb</i></b>	1140	1144	1143	1140	1140
<i>tRNA</i> (2)	137	134	137	138	132
<b>D-Loop</b>	1125	877	898	908	1175
<b>Total</b>	<b>16571</b>	<b>16300</b>	<b>16313</b>	<b>16338</b>	<b>16613</b>

Total sequence length is shown for tRNA-encoding sequences-separated mitochondrial genes and/or control region (D-Loop; number of individual tRNA sequences is given in parentheses). Summed sequence length is also shown for mt-Atp8, -Atp6 and -Co3 genes, mt-Nd4l and -Nd4 (all organisms), mt-Nd5 and -Nd6 (all but *Homo sapiens*) owing to overlap in the coding sequences of the corresponding genes.

Supplemental Table 4. Individual SAGE tags matching mitochondrial genome; frequency in human mammary gland, pancreatic and prostatic samples

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Mammary gland <sup>c</sup>			Pancreas <sup>d</sup>			Prostate <sup>e</sup>		
				Normal	Cancer	Trend <sup>f</sup>	Normal	Cancer	Trend <sup>f</sup>	Normal	Cancer	Trend <sup>f</sup>
1	CAAGCATCCC	<i>mt-Rnr1</i>		0.20%	0.10%	↓ *	0.09%	0.08%		0.13%	0.20%	↑ *
2	AGGTGGCAAG	<i>mt-Rnr1</i>		0.10%	0.07%		0.03%	0.02%		0.05%	0.10%	↑ *
3	GTAAGTGTAC	<i>mt-Rnr1</i>		0.06%	0.03%		0.02%	0.01%		0.04%	0.08%	
4	AAAACATTCT	<i>mt-Rnr2</i>		<b>0.51%</b>	0.24%	↓ ***	0.08%	0.12%	↑ **	0.08%	<b>0.25%</b>	↑ ***
5	CTCATAAGGA	<i>mt-Rnr2</i>		0.10%	0.12%		0.03%	0.05%	↑ *	0.08%	0.24%	↑ ***
6	TTAACCGGCC	<i>mt-Rnr2</i>		0.12%	0.10%		0.02%	0.02%		0.09%	0.15%	↑ **
7	ACACAGCAAG	<i>mt-Rnr2</i>		0.24%	0.03%	↓ ***	0.02%	0.02%		0.04%	0.02%	
8	CTAAGACTTC	<i>mt-Rnr2</i>		<b>0.39%</b>	<b>0.31%</b>		0.09%	<b>0.30%</b>	↑ ***	<b>0.26%</b>	<b>0.86%</b>	↑ ***
9	GCCAACCTCC	<i>mt-Nd1</i>	Variant	<0.01%	0.01%		<0.01%	0.02%		<0.01%	0.01%	
	ACCAACCTCC	<i>mt-Nd1</i>		0.00%	0.00%		<0.01%	0.00%		0.00%	<0.01%	
10	ACCCTTGGCC	<i>mt-Nd1</i>		0.06%	0.08%		0.14%	0.17%	↑ *	0.03%	0.13%	↑ ***
11	CTAGCTTTA	<i>mt-Nd2</i>		0.02%	0.01%		0.01%	<0.01%		0.01%	0.02%	
12	ACAAAAACTA	<i>mt-Nd2</i>		0.03%	0.02%		0.02%	0.03%		0.03%	0.04%	
13	ACTAACACCC	<i>mt-Nd2</i>		0.06%	0.07%		0.11%	0.11%		0.09%	0.13%	
14	AGCTGGAGTC	<i>mt-Co1</i>		0.01%	<0.0%		<0.01%	<0.01%		0.03%	0.01%	
15	CATTTGTAAT	<i>mt-Co1</i>		0.02%	0.0%		0.01%	0.02%		0.02%	0.03%	
16	AAACATCCTA	<i>mt-Co1</i>		<0.01%	0.0%		<0.01%	<0.01%		0.07%	0.02%	
17	ATTTGAGAAG	<i>mt-Co1</i>		0.09%	0.12%	↑ *	0.11%	0.20%	↑ ***	0.06%	0.16%	↑ **
18	ACTTTTCAA	<i>tRNA</i>		<b>0.40%</b>	<b>0.93%</b>	↑ ***	<b>0.30%</b>	0.18%		0.19%	0.24%	
19	CAGCGCAAGT	<i>mt-Co2</i>		0.00%	<0.01%		0.00%	0.00%		<0.01%	<0.01%	
20	ATCACGCCCT	<i>mt-Co2</i>		0.02%	0.02%		0.03%	0.05%		0.03%	0.04%	
21	AGCTGTCCCC	<i>mt-Co2</i>		<0.01%	<0.01%		0.07%	<0.01%	↓ ***	0.03%	0.02%	
22	CCCATCGTCC	<i>mt-Co2</i>		<b>0.25%</b>	<b>0.37%</b>	↑ *	<b>0.28%</b>	<b>0.68%</b>	↑ ***	<b>0.30%</b>	<b>0.60%</b>	↑ ***
23	GCCATCCCC	<i>mt-Atp8</i>		0.03%	0.02%		0.03%	0.01%		0.02%	0.03%	
24	CACCTAATTG	<i>mt-Atp6</i>		<b>0.32%</b>	<b>0.32%</b>		<b>0.32%</b>	0.24%		0.20%	<b>0.30%</b>	
25	CCTATCATAT	<i>mt-Co3</i>		<0.01%	<0.01%		<0.01%	<0.01%		<0.01%	<0.01%	
26	ACCCCTAACAA	<i>mt-Co3</i>		<0.01%	<0.01%		<0.01%	<0.01%		0.01%	<0.01%	
27	TGATTTCACT	<i>mt-Co3</i>		0.18%	0.24%	↑ **	0.20%	0.19%	↓ **	0.20%	<b>0.34%</b>	↑ *
28	AGCCCTACAA	<i>mt-Nd3</i>		0.24%	0.22%		0.24%	0.16%		0.23%	<b>0.30%</b>	↑ *
29	ACTTTCCAAA	<i>mt-Nd4</i>		0.04%	0.03%		0.01%	0.02%		0.01%	0.02%	
30	GCAAGCCAAC	<i>mt-Nd4</i>		0.05%	0.04%		0.05%	0.01%		0.02%	0.03%	
31	TCGAAGCCCC	<i>mt-Nd4</i>		0.07%	0.06%		0.06%	0.06%		0.10%	0.09%	
32	TTCATACACC	<i>mt-Nd4</i>		<b>0.26%</b>	<b>0.30%</b>		<b>0.32%</b>	0.12%		0.18%	0.23%	
33	GCTTCTCAA	<i>tRNA</i>		<0.01%	<0.01%		<0.01%	<0.01%		0.02%	<0.01%	↓ **
34	CACACTACTA	<i>mt-Nd5</i>		<0.01%	<0.01%		0.00%	0.00%		<0.01%	<0.01%	
35	TGCCTAGACC	<i>mt-Nd5</i>		<0.01%	<0.01%		0.00%	<0.01%		<0.01%	<0.01%	
36	GTCCATCATA	<i>mt-Nd5</i>		<0.01%	<0.01%		<0.01%	<0.01%		<0.01%	<0.01%	
37	ATTTATCCTA	<i>mt-Nd5</i>		<0.01%	<0.01%		<0.01%	0.00%		<0.01%	<0.01%	
38	AGACCCACAA	<i>mt-Nd5</i>		0.02%	0.02%		0.02%	0.02%		<0.01%	0.02%	
39	CCTCAGGATA	<i>mt-Nd6</i>		0.02%	0.03%		0.03%	0.06%	↑ *	0.02%	0.05%	
40	ATGAAACTTC	<i>mt-Cytb</i>		<0.01%	<0.01%		0.01%	<0.01%		0.11%	0.05%	

Supplemental Table 4. (Cont.)

N	Tag	Gene <sup>a</sup>	SNPs <sup>b</sup>	Mammary gland <sup>c</sup>			Pancreas <sup>d</sup>			Prostate <sup>e</sup>		
				Normal	Cancer	Trend <sup>f</sup>	Normal	Cancer	Trend <sup>f</sup>	Normal	Cancer	Trend <sup>f</sup>
41	CACTACTCAC	<i>mt-Cytb</i>		0·03 %	0·06 %		0·14 %	0·06 %		0·04 %	0·12 %	↑ **
42	GGGAAGCAGA	<i>D-Loop</i>		0·03 %	0·09 %	↑ ***	0·04 %	0·04 %		0·07 %	0·04 %	
43	AATATTGTAC	<i>D-Loop</i>		<0·01 %	<0·01 %		<0·01 %	<0·01 %		<0·01 %	<0·01 %	
44	CTTACAAGCA	<i>D-Loop</i>		<0·01 %	<0·01 %		<0·01 %	0·01 %		<0·01 %	<0·01 %	
45	GATGACCCCC	<i>D-Loop</i>		0·01 %	0·01 %		<0·01 %	0·02 %		<0·01 %	<0·01 %	
46	CATTTGGTAT	<i>D-Loop</i>		0·01 %	<0·01 %		<0·01 %	<0·01 %		0·02 %	0·02 %	
<i>Total</i>				<b>4·05 %</b>	<b>4·65 %</b>		<b>2·99 %</b>	<b>3·15 %</b>		<b>2·95 %</b>	<b>5·08 %</b>	

SAGE tags are sorted based on their position in human mitochondrial genome.

<sup>a</sup> Ribosomal RNA, mitochondrial genes and transfer RNAs sequences are shown.

<sup>b</sup> SNPs, single nucleotide polymorphisms and/or genetic variations within SAGE tags.

<sup>c</sup> Mammary gland. Normal: GSM677, GSM692, GSM760, GSM781, GSM14754, GSM14756, GSM14757, GSM14801; Cancer: GSM670, GSM672, GSM687, GSM688, GSM725, GSM750, GSM752, GSM753, GSM1730, GSM1731, GSM1733, GSM2382, GSM2383, GSM2389, GSM14743, GSM14745, GSM14746, GSM14747, GSM14748, GSM14797, GSM14800.

<sup>d</sup> Pancreas. Normal: GSM678, GSM716, GSM721, GSM3838, GSM3839, GSM3840, GSM14770; Cancer: GSM742, GSM743, GSM744, GSM14735, GSM14736.

<sup>e</sup> Prostate. Normal: GSM685, GSM739, GSM754, GSM764, GSM14752, GSM14758; Cancer: GSM680, GSM681, GSM683, GSM684, GSM686, GSM723, GSM724, GSM740.

<sup>f</sup> Trend to alteration is indicated by arrowheads (↑ or ↓). Asterisks (\*, \*\* and \*\*\*), indicate statistical significance between averaged tag abundance in groups calculated according to Madden *et al.* (1997). \*  $P < 0·05$ ; \*\*  $P < 0·01$ ; \*\*\*  $P < 0·001$ .

Expression of individual SAGE tags (group average) is shown as a percentage to the total number of analysed tags. Boldface denotes SAGE tags accounting for over 0·25 % of a total number of sequenced tags.