

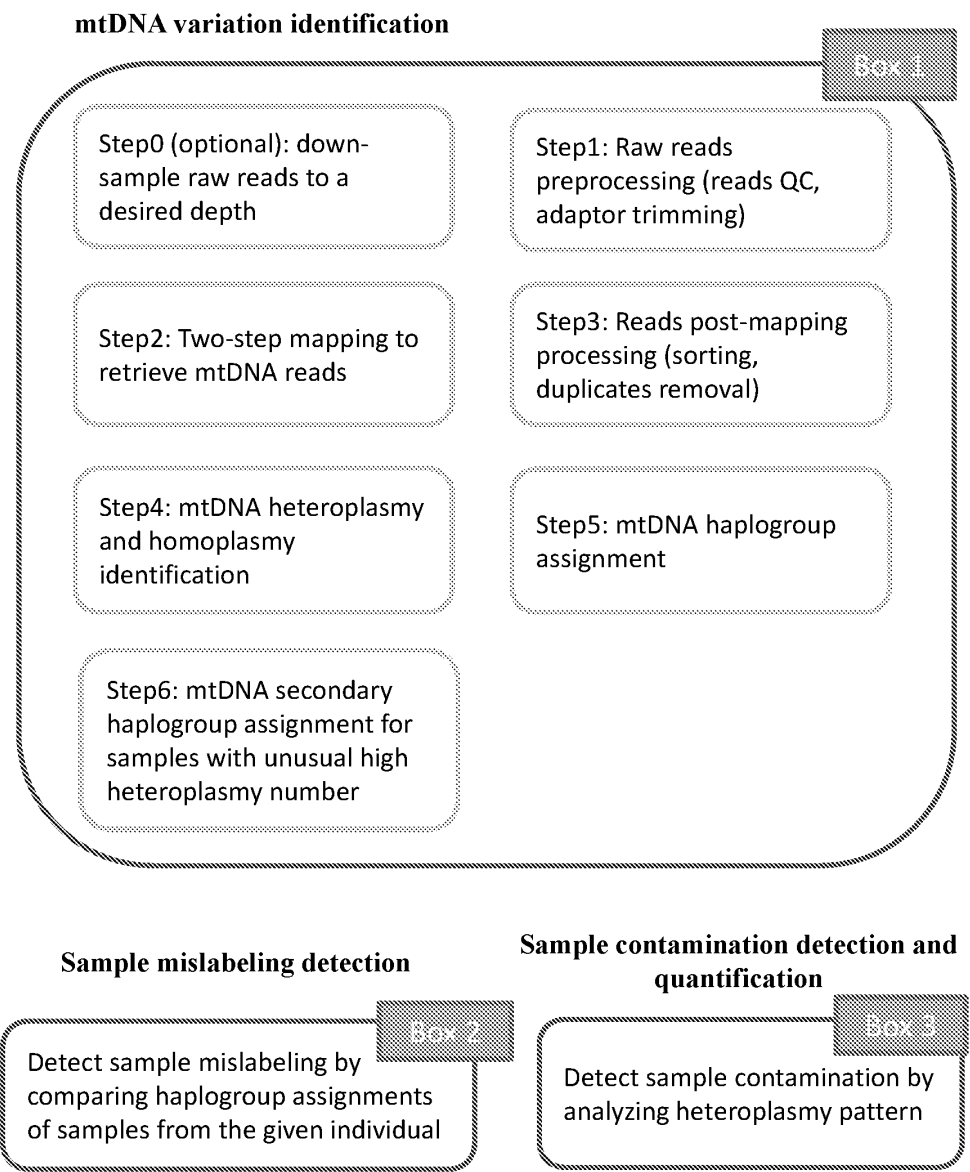


Figure 1

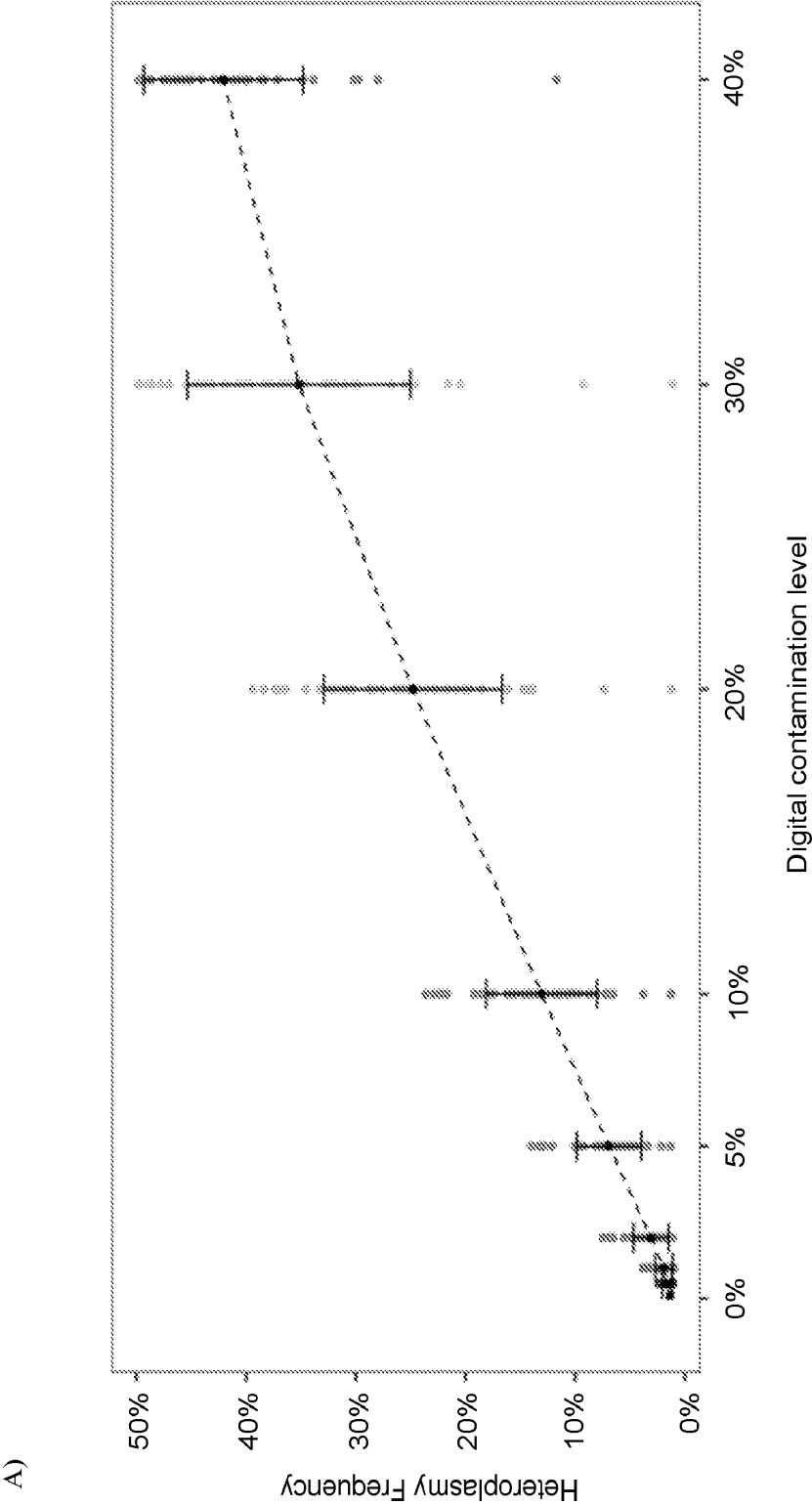


Figure 2

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B)

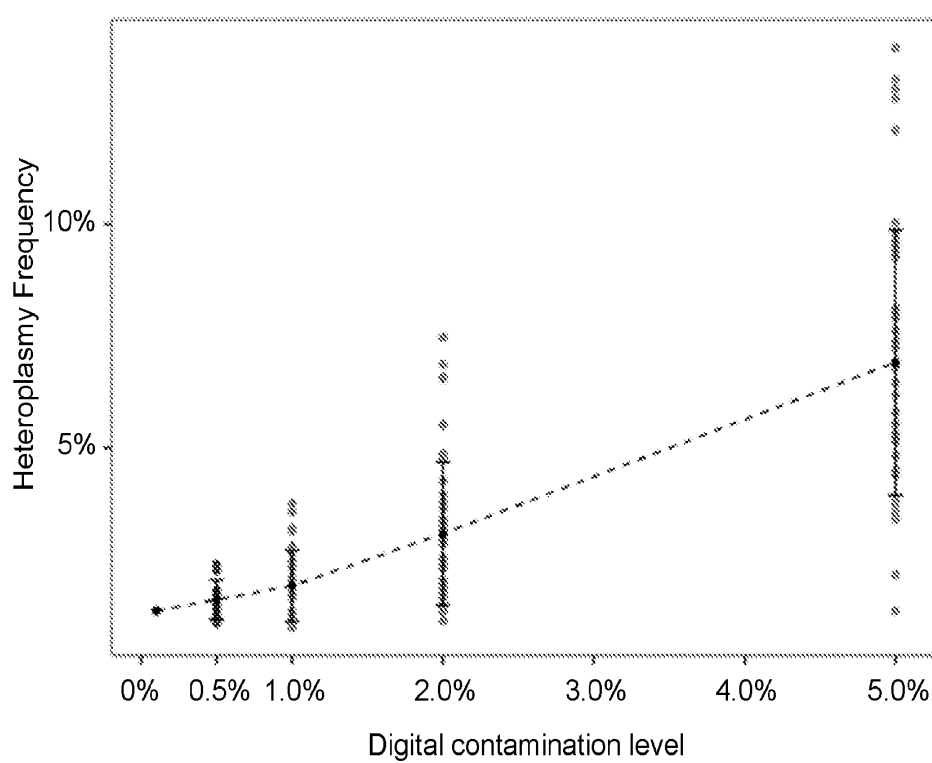


Figure 2 (cont.)

Digital contamination level	Heteroplasmy detected	Primary haplogroup	Secondary haplogroup	Heteroplasmy frequency mean	Heteroplasmy frequency median	Heteroplasmy frequency sd
0.1%	1	U5a2a1a	U5a2a1a	1.4%	1.4%	NA
0.5%	11	U5a2a1a	U5a2a1a	1.6%	1.5%	0.4%
1%	29	U5a2a1a	D4b1a1	1.9%	1.7%	0.8%
2%	45	U5a2a1a	D4b1a1	3.1%	2.9%	1.5%
5%	46	U5a2a1a	D4b1a1	6.9%	6.6%	3.0%
10%	46	U5a2a1a	D4b1a1	13.1%	12.8%	5.1%
20%	46	U5a2a1a	D4b1a1	24.8%	25.0%	8.1%
30%	46	U5a2a1a	D4b1a1	35.2%	36.3%	10.2%
40%	45	U5a2a1a	D4b1a1	42.1%	44.1%	7.3%

Figure 3

Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493849	IL1	L3e2a1b1	L3e2a1b1	1	Normal	Ile	NA	pair
SRR3493850	IL2	L2a1l2a	L2a1l2a	0	Normal	Ile	NA	pair
SRR3493799	P427	H4	H4	1	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493809	P427	H4	H4	1	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493818	P427	H4	H4	2	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493828	P427	H4	H4	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493838	P427	H4	H4	1	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493790	P501	T2f1a1	T2f1a1	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493791	P501	T2f1a1	T2f1a1	0	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493792	P501	T2f1a1	T2f1a1	1	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493839	P501	T2f1a1	T2f1a1	1	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493840	P501	T2f1a1	T2f1a1	0	Ulcerative colitis	Prepouch ileum	8mo	pair

Figure 4

Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493841	P501	T2f1a1	T2f1a1	0	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493846	P502	J1c3a1	J1c3a1	1	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493793	P503	H49a2	H49a2	1	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493794	P503	H49a2	H49a	1	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493795	P503	H49a2	H49a2	0	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493796	P503	H49a2	H49a2	0	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493797	P503	H49a2	H49a2	0	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493798	P505	U1a1a1a	U1a1a1a	1	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493800	P505	U1a1a1a	U1a1a1a	1	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493801	P505	U1a1a1a	U1a1a1a	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493802	P505	U1a1a1a	U1a1a	0	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493803	P505	U1a1a1a	U1a1a1a	1	Ulcerative colitis	Ileal pouch	12mo	pair

Figure 4 (cont.)

Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493804	P506	L1b2a	L1b2a	0	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493805	P506	L1b2a	L1b2a	0	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493806	P506	L1b2a	L1b2	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493807	P506	L1b2a	L1b2a	1	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493808	P506	L1b2a	L1b2	2	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493810	P507	H1+16311	H1e8	1	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493811	P507	H1+16311	H1+16311	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493812	P508	H1a	H1a	2	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493813	P508	H1a	H1a	2	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493814	P508	H1a	H1a	0	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493815	P508	H1a	H1a	1	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493816	P509	N1a1a1a1	N1a1a1a1	1	Ulcerative colitis	Prepouch ileum	4mo	pair

Figure 4 (cont.)

Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493817	P509	N1a1a1a1	N1a1a1a1	0	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493819	P510	K1a1b1a	K1a1b1a	0	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493820	P510	K1a1b1a	K1a1b1a	2	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493821	P511	H1ar1	H1ar1	3	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493822	P511	H1ar1	H1ar1	2	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493823	P511	H1ar1	H1ar1	3	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493824	P511	H1ar1	H1ar1	3	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493825	P512	I1a1a	I1a1a	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493826	P513	T1a1	T1a1	0	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493827	P513	T1a1	T1a1	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493829	P600	T2b36	T2b36	1	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493830	P600	T2b36	T2b36	0	Ulcerative colitis	Prepouch ileum	8mo	pair

Figure 4 (cont.)

Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493831	P600	T2b36	T2b36	0	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493832	P600	T2b36	T2b36	0	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493844	P601	T2b21	T2b21b	0	FAP	Prepouch ileum	>12mo	pair
SRR3493845	P601	T2b21	T2b21	1	FAP	Ileal pouch	>12mo	pair
SRR3493847	P602	J1c1b1	J1c1b1	1	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493848	P602	J1c1b1a	J1c1b1a	1	Ulcerative colitis	Prepouch ileum	12mo	pair
SRR3493833	P604	U5b2a1a1	J1c8a	29	Ulcerative colitis	Prepouch ileum	8mo	pair
SRR3493834	P604	U5b2a1a1	U5b2a1a1	1	Ulcerative colitis	Ileal pouch	8mo	pair
SRR3493835	P604	U5b2a1a1	U5b2a1a1	1	Ulcerative colitis	Ileal pouch	12mo	pair
SRR3493836	P607	H1c1	H1c1	0	Ulcerative colitis	Prepouch ileum	4mo	pair
SRR3493837	P607	H1c1	H1e8	1	Ulcerative colitis	Ileal pouch	4mo	pair
SRR3493842	P701	H6a1b4	H6a1b4	0	FAP	Prepouch ileum	>12mo	pair

Figure 4 (cont.)

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Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493843	P701	H6a1b4	H6a1b4	0	FAP	Ileal pouch	>12mo	pair
SRR3493774	P500	J1c8a	J1c8a	5	Ulcerative colitis	Ileal pouch	4mo	single
SRR3493775	P500	J1c8a	J1c8a	3	Ulcerative colitis	Prepouch ileum	4mo	single
SRR3493776	P500	J1c8a	J1c8a	5	Ulcerative colitis	Ileal pouch	8mo	single
SRR3493777	P500	J1c8a	J1c8a	4	Ulcerative colitis	Prepouch ileum	8mo	single
SRR3493778	P500	J1c8a	J1c8	3	Ulcerative colitis	Ileal pouch	12mo	single
SRR3493779	P500	J1c8a	J1c8a	4	Ulcerative colitis	Prepouch ileum	12mo	single
SRR3493780	P502	J1c3a1	JT	3	Ulcerative colitis	Ileal pouch	4mo	single
SRR3493781	P502	J1c3a1	J1c3a1	4	Ulcerative colitis	Prepouch ileum	4mo	single
SRR3493782	P502	J1c3a1	J1c3a1	3	Ulcerative colitis	Ileal pouch	8mo	single
SRR3493783	P502	J1c3a1	J1c3a1	3	Ulcerative colitis	Prepouch ileum	8mo	single
SRR3493784	P502	J1c3a1	J1c3a1	6	Ulcerative colitis	Ileal pouch	12mo	single

Figure 4 (cont.)

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Sample ID	Patient ID	Primary haplogroup	Secondary haplogroup	Heteroplasmy number	Diagnosis	Tissue	Biopsy time	single/pair end
SRR3493785	P502	J1c3a1	J1c3a1	3	Ulcerative colitis	Prepouch ileum	12mo	single
SRR3493786	P602	J1c1b1	J1c1b1	2	Ulcerative colitis	Ileal pouch	>12mo	single
SRR3493787	P602	J1c1b1	J1c1b1	3	Ulcerative colitis	Prepouch ileum	>12mo	single
SRR3493788	P603	H1j	H1j	3	Ulcerative colitis	Ileal pouch	>12mo	single
SRR3493789	P603	H1j	H1j	1	Ulcerative colitis	Prepouch ileum	>12mo	single

Figure 4 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631600	1	LSCC tissue	D5a2a2	D5a2a2	0
SRR8631657	1	adjacent normal mucosa tissue	D5a2a2	D5a2a2	0
SRR8631601	2	LSCC tissue	B5a	B5a	3
SRR8631658	2	adjacent normal mucosa tissue	B5a	B5a	0
SRR8631602	3	LSCC tissue	M8a3	M8a3	2
SRR8631659	3	adjacent normal mucosa tissue	M8a3	M8a3	0
SRR8631603	4	LSCC tissue	A13	A13	0
SRR8631660	4	adjacent normal mucosa tissue	A13	A13	0
SRR8631604	5	LSCC tissue	D4b2b	D4b2b	0
SRR8631661	5	adjacent normal mucosa tissue	D4b2b	D4b2b	0
SRR8631605	6	LSCC tissue	F1a1a	F1a1a	1
SRR8631662	6	adjacent normal mucosa tissue	F1a1a	F1a1a	0
SRR8631606	7	LSCC tissue	D2b1a	D2b1a	0
SRR8631663	7	adjacent normal mucosa tissue	D2b1a	D2b1a	0

Figure 5

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631664	8	adjacent normal mucosa tissue	D4	D4	0
SRR8631607	8	LSCC tissue	D4	D4	0
SRR8631608	9	LSCC tissue	D4	D4	1
SRR8631665	9	adjacent normal mucosa tissue	D4	D4	1
SRR8631609	10	LSCC tissue	G1a1a	G1a1a	0
SRR8631666	10	adjacent normal mucosa tissue	G1a1a	G1a1a	0
SRR8631667	11	adjacent normal mucosa tissue	Z3d	Z3d	1
SRR8631610	11	LSCC tissue	Z3d	Z3d	0
SRR8631668	12	adjacent normal mucosa tissue	D4b2b6	D4b2b6	0
SRR8631611	12	LSCC tissue	D4b2b6	D4b2b6	0
SRR8631612	13	LSCC tissue	D4h1c	D4h1c	3
SRR8631669	13	adjacent normal mucosa tissue	D4h1c	D4h1c	2
SRR8631613	14	LSCC tissue	N9a10	N9a10	1
SRR8631670	14	adjacent normal mucosa tissue	N9a10	N9a10	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631614	15	LSCC tissue	D5b1b	D5b1b	0
SRR8631671	15	adjacent normal mucosa tissue	D5b1b	D5b1b	0
SRR8631615	16	LSCC tissue	Z3d	Z3d	1
SRR8631672	16	adjacent normal mucosa tissue	Z3d	Z3d	0
SRR8631673	17	adjacent normal mucosa tissue	N9a8	N9a8	2
SRR8631616	17	LSCC tissue	N9a8	N9a8	0
SRR8631617	18	LSCC tissue	B4f	B4f	0
SRR8631674	18	adjacent normal mucosa tissue	B4f	B4f	0
SRR8631618	19	LSCC tissue	M9a1a1c1b	M9a1a1c1b	0
SRR8631675	19	adjacent normal mucosa tissue	M9a1a1c1b	M9a1a1c1b	0
SRR8631619	20	LSCC tissue	N9a1	N9a1	0
SRR8631676	20	adjacent normal mucosa tissue	N9a1	N9a1	0
SRR8631677	22	adjacent normal mucosa tissue	Z3a	Z3a	0
SRR8631620	22	LSCC tissue	Z3a	Z3a	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631621	23	LSCC tissue	C5d	C5d	1
SRR8631678	23	adjacent normal mucosa tissue	C5d	C5d	0
SRR8631622	24	LSCC tissue	M7c1a2a	M7c1a2a	3
SRR8631679	24	adjacent normal mucosa tissue	M7c1a2a	M7c1a2a	1
SRR8631623	25	LSCC tissue	M9a1a1c1a	M9a1a1c1a	1
SRR8631680	25	adjacent normal mucosa tissue	M9a1a1c1a	M9a1a1c1a	0
SRR8631681	26	adjacent normal mucosa tissue	D4e5a	D4e5a	1
SRR8631624	26	LSCC tissue	D4e5a	D4e5a	0
SRR8631625	27	LSCC tissue	B4d1	B4d1	3
SRR8631682	27	adjacent normal mucosa tissue	B4d1	B4d1	4
SRR8631626	28	LSCC tissue	B5b1a1	B5b1a1	0
SRR8631683	28	adjacent normal mucosa tissue	B5b1a1	B5b1a1	0
SRR8631627	29	LSCC tissue	D4h1b	D4h1b	2
SRR8631684	29	adjacent normal mucosa tissue	D4h1b	D4h1b	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631628	30	LSCC tissue	D4e5b	D4e5b	1
SRR8631685	30	adjacent normal mucosa tissue	D4e5b	D4e5b	1
SRR8631629	31	LSCC tissue	B4d1a	B4d1a	1
SRR8631686	31	adjacent normal mucosa tissue	B4d1a	B4d1a	0
SRR8631630	34	LSCC tissue	A6	A6	0
SRR8631687	34	adjacent normal mucosa tissue	A6	A6	0
SRR8631631	35	LSCC tissue	F3a	F3a	2
SRR8631688	35	adjacent normal mucosa tissue	F3a	F3a	1
SRR8631632	36	LSCC tissue	N9a	N9a	1
SRR8631689	36	adjacent normal mucosa tissue	N9a	N9a	0
SRR8631633	37	LSCC tissue	D5b1	D5b1	1
SRR8631690	37	adjacent normal mucosa tissue	D5b1	D5b1	0
SRR8631691	46	adjacent normal mucosa tissue	G2a	G2a	0
SRR8631634	46	LSCC tissue	G2a'c	G2a'c	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631635	50	LSCC tissue	A13	A13	0
SRR8631692	50	adjacent normal mucosa tissue	A13	A13	0
SRR8631636	51	LSCC tissue	D5b1b	D5b1b	1
SRR8631693	51	adjacent normal mucosa tissue	D5b1b	D5b1b	0
SRR8631694	52	adjacent normal mucosa tissue	F1g	F1g	2
SRR8631637	52	LSCC tissue	F1	F1	0
SRR8631695	53	adjacent normal mucosa tissue	F1g	F1g	1
SRR8631638	53	LSCC tissue	F1g	F1g	0
SRR8631696	54	adjacent normal mucosa tissue	M7c1a	M7c1a	0
SRR8631639	54	LSCC tissue	M7c1a	M7c1a	0
SRR8631640	55	LSCC tissue	B4h	B4h	2
SRR8631697	55	adjacent normal mucosa tissue	B4h	B4h	1
SRR8631641	56	LSCC tissue	F1a1	F1a1	1
SRR8631698	56	adjacent normal mucosa tissue	F1a1	F1a1	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631642	57	LSCC tissue	N9a2	N9a2	2
SRR8631699	57	adjacent normal mucosa tissue	N9a2	N9a2	4
SRR8631643	58	LSCC tissue	G2a1d	G2a1d	1
SRR8631700	58	adjacent normal mucosa tissue	G2a1d	G2a1d	0
SRR8631644	59	LSCC tissue	Z3d	Z3d	0
SRR8631701	59	adjacent normal mucosa tissue	Z3d	Z3d	0
SRR8631645	60	LSCC tissue	A+152+16362+200	A+152+16362+200	1
SRR8631702	60	adjacent normal mucosa tissue	A+152+16362+200	A+152+16362+200	1
SRR8631646	61	LSCC tissue	B4d3a	B4d3a	1
SRR8631703	61	adjacent normal mucosa tissue	B4d3a	B4d3a	1
SRR8631647	62	LSCC tissue	A+152+16362	A+152+16362	3
SRR8631704	62	adjacent normal mucosa tissue	A+152+16362	A+152+16362	0
SRR8631648	63	LSCC tissue	I2	I2	1
SRR8631705	63	adjacent normal mucosa tissue	I2	I2	0

Figure 5 (cont.)

Sample ID	Subject ID	Tissue	Primary haplogroup	Secondary haplogroup	Heteroplasmy number
SRR8631649	64	LSCC tissue	M12a1a	M12a1a	1
SRR8631706	64	adjacent normal mucosa tissue	M12a1a	M12a1a	0
SRR8631650	65	LSCC tissue	N9a3	N9a3	1
SRR8631707	65	adjacent normal mucosa tissue	N9a3	N9a3	0
SRR8631651	66	LSCC tissue	F1a1c	F1a1c	1
SRR8631708	66	adjacent normal mucosa tissue	F1a1c2	F1a1c2	1
SRR8631709	73	adjacent normal mucosa tissue	D5a2a1	D5a2a1	0
SRR8631652	73	LSCC tissue	D5a2a1+@16172	D5a2a1+@16172	0
SRR8631653	74	LSCC tissue	A15a	A15a	2
SRR8631710	74	adjacent normal mucosa tissue	A15a	A15a	0
SRR8631654	75	LSCC tissue	B4a1	B4a1	2
SRR8631711	75	adjacent normal mucosa tissue	B4a1	B4a1	0
SRR8631655	76	LSCC tissue	F1a1c	F1a1c	2
SRR8631712	76	adjacent normal mucosa tissue	F1a1c	F1a1c	0
SRR8631656	77	LSCC tissue	M7a1a1a	M7a1a1a	1
SRR8631713	77	adjacent normal mucosa tissue	M7a1a1a	M7a1a1a	0

Figure 5 (cont.)