

## Supplemental Data

### Mitochondrial DNA Haplogroups M7b1'2 and M8a Affect Clinical Expression of Leber Hereditary Optic Neuropathy in Chinese Families with the m.11778G→A Mutation

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**Table S1. mtDNA Sequence Variation and Haplogroup Classification of 175 Families with m.11778G→A and LHON**

Sample	Haplogroup	Region 16024-16569 (16000+)	Region 1-850 (all with 73 and 315+C)	Coding Region Mutation <sup>a</sup>
Le1053	A	223 290 293C 319 519	152 263 309+C 523-524d 663 750	
Le1096	A4	223 290 319 362	152 200 235 263 309+C 523-524d 663 750	+663HaeIII; +5176AluI; -9820HinfI
Le1351	A4	209 223 274 290 319 362	152 207 235 309+C 523-524d 663 750	
Le216	A4	223 290 319 362	152 207 235 309+C 329 523-524d 663 750	+663HaeIII
Le243	A4	223 290 319 362 519	195 200 235 263 309+C 523-524d 663 750	
Le296	A4	124 223 290 319 362	152 235 263 309+C 523-524d 663 750	+663HaeIII
Le615	A4	223 290 319 325 362	41 152 235 263 523-524d 663 750	+663HaeIII
Le67	A4	223 290 319 362	152 200 235 263 309+C 523-524d 663 750	+663HaeIII
Le917	A4	124 223 290 319 362	151 152 200 235 263 309+C 523-524d 663 750	+663HaeIII
Le977	A4	129 223 290 319 362	152 179 235 263 663 750	
Le458	B4	182C 183C 189 217 261	263 309+CC 523-524d 750	9bpd

Le856	B4	182C 183C 189 217 223 519	263 309+C 573+6C 709 750 827	
Le1007	B4a	129 182C 183C 189 217 261 311	263 309+CC 523-524d 750	+5176AluI; 9bpd
Le546	B4a	150 182C 183C 189 217 240 261	143 263 309d 523-524d 750	
Le942	B4a	182C 183C 189 217 261 519	263 309+C 523-524d 573+5C 750	9bpd
Le991	B4a	129 182C 183C 189 217 261 519	263 309+C 523-524d 750	
Le1064	B4a'g	129 182C 183C 189 217 261 356	93 263 309+CC 513 523-524d 750	
Le1321	B4a'g	168 182C 183C 189 217 261 311 519	182 185 263 309+C 523-524d 750	
Le1003	B4b1	136 183C 187A 189 217 519	263 309+C 499 750 827	
Le353	B4b1	136 154 183C 189 217 218 519	150 249d 263 309+CC 499 709 750 827	
Le269	B4b1a	136 183C 189 217 519	152 207 263 499 750 827	
Le780	B4b1a	93 136 183C 189 217 519	207 263 499 750 827	
Le931	B4b1a	136 183C 189 217 519	207 263 309+CC 499 523-524d 750 827	9bpd
Le804	B4b1b'c	86 136 183C 189 217 218 519	263 309+C 499 750 827	
Le406	B4b'd	183C 189 217 519	263 309+CC 316 750 827	
Le1188	B4c1	168 182C 183C 189 217 311 519	263 309+CC 523-524d 750 794	-663HaeIII; +5176AluI; -9820HinfI; 9bpd
Le782	B4c1b	129 140 166 179 182C 183C 189 217 274 335 465 519	150 195 263 309d 709 750	9bpd
Le1114	B4g	181C 182C 183C 189 213 217 261 278 292 519	263 302C 309+CC 455+T 523-524d 750	-663HaeIII; +5176AluI; -9820HinfI; 9bpd
Le1344	B4g	90 181C 182C 183C 189 213 217 261 292 519	61A 62 263 309+CC 523-524d 750	
Le1121	B5a	93 140 183C 189 260 266G 311 519	210 263 294 309+C 709 750	-663HaeIII; +5176AluI; -9820HinfI; 9bpd
Le1365	B5a	140 183C 189 266A 519	210 263 309+CC 523-524d 709 750	
Le1366	B5a	140 183C 189 218 266A 519	210 263 523-524d 709 750	
Le18	B5a	93 140 183C 189 260 266G 519	210 263 294 309+C 709 750	-663HaeIII; 9bpd
Le416	B5a	93 140 182C 183C 189 266A 519	210 263 309+CC 523-524d 709 750	9bpd
Le74	B5a	140 183C 189 266A 362 519	150 210 263 309+CC 455+T 523-524d 709 750	+5176AluI; -9820HinfI; 9bpd
Le555	B5a2	140 187 189 256 266G 519	93 210 263 523-524d 709 750	
Le246	B5b	140 145 182C 183C 189 243 257 362 519	103 146 204 263 709 750	-9820HinfI; 9bpd
Le487	B5b	140 182C 183C 189 243 519	103 195 198 204 207 263 309+CC 523-524d 709 750	

Le204	C	223 298 327 519	249d 263 489 750	
Le51	C	183C 189 223 298 327 519	249d 263 309+CC 489 593 750	+5176AluI
Le534	C	223 298 327 519	146 249d 263 309+C 489 750	
Le767	C	213 223 298 327 519	249d 263 309+C 489 750	
Le867	C	223 298 327 519	146 249d 263 489 750	
Le889	C	129 150 189 223 298 327 519	195 249d 263 309+CC 489 750	
Le912	C	93 184 223 298 327 519	152 249d 263 309+C 489 750	
Le1278	D4	174 362	263 309+C 489 750	
Le1120	D4	223 271 362 519	263 298 489 593 750	-663HaeIII; 3010; -5176AluI; -9820HinfI
Le1168	D4	192 223 362	263 489 750 869	-663HaeIII; 3010; -5176AluI; -9820HinfI
Le1191	D4	223 362	263 309+C 489 750	-5176AluI
Le1211	D4	192 223 362	263 489 750 869	-5176AluI
Le1367	D4	223 362	263 309+C 489 750	-5176AluI
Le385	D4	174 223 352 362	263 309+C 489 523-524d 750	3010; -5176AluI; 10400
Le394	D4	192 223 362 519	263 309+C 489 593 709 750	-5176AluI
Le442	D4	129 223 274h 311h 362	263 298h 309+CC 489 750	-5176AluI
Le519	D4	174 223 343 362	263 489 750	-5176AluI
Le565	D4	86 188 223 362	263 489 750	-5176AluI
Le604	D4	223 249 250 309 362	263 309+C 489 750	-5176AluI
Le631	D4	172 362 519	194 263 489 523-524d 722 750	-5176AluI
Le638	D4	174 362	263 309+C 489 750	-5176AluI
Le698	D4	223 362 519	152 195 263 309+C 489 750	-5176AluI
Le954	D4	42 214 223 362	263 309+C 489 709 750	-663HaeIII; 3010; -5176AluI
Le812	D4	174 177 223 362	263 309+C 489 573+5C 750	3010; -5176AluI
Le854	D4	92 223 270 362	263 309+C 489 750	-5176AluI
Le894	D4	184 311 362 519	194 263 489 523-524d 750	-5176AluI
Le930	D4	223 362	263 489 750	-5176AluI

Le952	D4	223 362	263 309+C 489 523-524d 750 789	-5176AluI
Le976	D4	93 188 214 223 362	146 263 309+C 489 750	-5176AluI
Le343	D4a	129 223 362 519	152 263 309+CC 489 750	-5176AluI
Le392	D4a	129 223 256 299 362 519	152 263 489 750	-5176AluI
Le457	D4a	129 223 263 362	151 152 263 309+C 489 750	
Le655	D4a	129 223 362 519	152 199 263 309+CC 489 750	
Le811	D4a3	93 129 223 249 362	143 146 152 196 263 309+C 489 750	
Le998	D4b1	185 189 193d 223 232A 319 362	263 309+CC 489 523-524d 750	
Le539	D4b1b	93 223 287 319 362 380	263 309+C 431 489 523-524d 750	-5176AluI; 9bpd
Le78	D4b1c	158 223 284 287 319	152 204 207 263 309+C 489 523-524d 750	-663HaeIII; -9820HinfI; 10398, 10400
Le285	D4b2b	223 362 519	150 194 263 489 523-524d 750	
Le422	D4b2b	223 283T 362 519	152 194 263 489 523-524d 573+3C 750	
Le1017	D4e1a1	93 176 223 362	94 194 263 309+C 489 750	3010; -5176AluI
Le1013	D4g2a	93 223 274 362	263 298 309+C 489 499 750	
Le1139	D4h	174 177 223 362	263 309+C 489 573+5C 750	-663HaeIII; 3010; -5176AluI; -9820HinfI
Le1140	D4h	174 223 352 362	263 309+C 489 523-524d 750	-663HaeIII; 3010; -5176AluI; -9820HinfI
Le1215	D4k	192 223	195 263 309+C 489 750	
Le423	D4k	192 223	195 263 309+C 489 750	
Le884	D4k	131 192 222 223 316 362	184 195 263 309+C 489 750	
Le877 <sup>b</sup>	D5	93 129 189 362 519	63 152 263 309+C 489 750	
Le1012	D5a	164 172 182C 183C 189 209 223 266 362	150 263 489 523-524d 750 752 870	
Le1057	D5a2	164 182C 183C 189 223 266 362 519	150 263 489 523-524d 750 752	
Le1108	D5a2a	92 164 167 172 182C 183C 189 223 266 362	150 235 263 309+C 489 523-524d 750 752	-663HaeIII; -5176AluI; -9820HinfI
Le563	D5a2a	92 167 172 182C 183C 189 223 266 274 293 362	150 263 489 523-524d 750 752	-5176AluI
Le1104	D5b	91 167 189 223 362	150 189 263 456 489 681 750	
Le1231	D5b	189 223 362 519	150 263 309+C 456 489 681 750	-663HaeIII; -5176AluI;

						-9820HinfI; 10343, 10397, 10398, 10400
Le141	D5b	129 148 183C 189 362 519		150 152 185 263 309+C 456 489 523-524d 681 750		
Le465	D5b	148 183C 189 223 362 519		150 152 185 188 263 309+CC 456 489 681 750		-5176AluI
Le779	D5b	183C 189 223 249 357 362 519		150 263 309+CC 456 489 681 750		
Le835	D5b	148 183C 189 223 362 519		150 152 185 263 309+CC 456 489 523-524d 681 750		-5176AluI
Le853	D5b	148 179 183C 189 223 362 519		150 152 185h 195 263 309+C 456 489 681 750		-5176AluI
Le873	D5b	91 167 189 223 362		150 189 263 456 489 681 750		
Le90	D5b	183C 189 223 362 519		150 263 456 489 511 681 750		-5176AluI; -9820HinfI
Le1357	D5b2b	223 362 519		41 194 263 489 523-524d 750		
<b>Le699</b>	F1a1	129 148 162 172 244 304 335 519		249d 263 309+C 523-524d 750		
<b>Le1048</b>	F1b	182C 183C 189 232A 304 519		152 249d 263 309d 523-524d 750		-663HaeIII; +5176AluI; -9820HinfI; 10223, 10235, 10310, 10609
<b>Le886</b>	F2a3	93 203 291 304 519		246 249d 263 296 309+C 750		
Le554	G	93 223 362 519		263 489 593 709 750		+5176AluI
<b>Le953</b>	G1c	223 362 519		263 309+C 489 593 709 750		
Le1355	G1a1	189 221 223 325 362 519		150 263 489 709 750		
<b>Le1269</b>	G2a	129 223 278 362		173 263 489 709 750		-663HaeIII; +5176AluI; -9820HinfI; 10398, 10400
<b>Le1244</b>	G2a1	223 227 278 362		152 263 489 573+5C 709 750		
<b>Le553</b>	G2a1	117 223 227 278 362		263 489 709 750		
Le1336	G2a2	51 86 150 223 278 362		263 489 709 750		
<b>Le696</b>	G2b	223 362 463		263 309+C 489 709 750		+5176AluI
Le145	G3	93 223 274 362		263 309+C 489 709 750		
Le237	G3	223 274 362		143 152 263 489 709 750		
Le647	G3	223 274 362 390 519		263 489 574 709 750		+5176AluI
Le1081	G3a	223 274 362		143 146 152 263 489 709 750		
Le1295	M10	223 248 271 311 519		263 309+CC 489 573+5C 709 750		
Le245	M10	129 223 311		263 309+C 489 573+5C 709 750		-663HaeIII; -9820HinfI;

Le1136	M10a1	129 193 223 311 357 497	146 152 263 309+C 489 523-524d 573+4C 709 750	10245, 10398, 10400, 10646 -663HaeIII; +5176AluI; -9820HinfI; 10398, 10400
Le255	M10a1	129 193 223 311 357 497	146 263 489 523-524d 573+5C 709 750	
Le515	M10a1	193 223 311 357 497	146 263 489 523-524d 573+5C 709 750	
Le580	M10a1	129 193 223 311 357 497	146 152 263 309+C 489 523-524d 573+4C 709 750	
Le549	M10b	66 220 223 311 519	263 489 573+4C 593 709 750	
Le869	M12	223 234 287 290 362	125 127 128 263 309+C 318 489 513 523	
Le918	M12	223 234 287 290 362	125 127 128 263 309+C 318 489 513 523	
Le1074	M7b1	93 129 192 213 223 297 309 519	150 199 263 309+C 489 709 750	
Le1142	M7b1	129 192 223 297	150 199 263 309+C 489 750	
<b>Le1174</b>	M7b1	92 129 192 223 297 360	150 159 199 263 309+CC 489 750	-663HaeIII; +5176AluI; +9820HinfI
<b>Le217</b>	M7b1	129 192 223 297	150 199 263 309+C 489 750	+9820HinfI
<b>Le265</b>	M7b1	92 129 192 223 254 297	150 159 182 199 263 489 750	+9820HinfI
Le359	M7b1	129 192 223 297	150 199 263 489 750	
<b>Le611</b>	M7b1	129 192 223 297	150 199 263 309+CC 489 750	+9820HinfI
Le666	M7b1	129 192 223 297	150 199 263 309+C 489 750	
Le777	M7b1	129 192 223 297	150 199 263 309+C 489 750	+9820HinfI
Le807	M7b1	129 192 223 297	150 195 199 263 309+C 489 750	+9820HinfI
<b>Le1127</b>	M7b1'2	129 223 297	146 150 199 263 309+C 489 750	-663HaeIII; +5176AluI; +9820HinfI
<b>Le924</b>	M7b1'2	129 223 269 297 527	150 199 263 309+C 489 750	-663HaeIII; +5176AluI; +9820HinfI
Le978	M7b1'2	129 189 223 297	150 199 204 263 309+CC 456 489 750	+5176AluI; +9820HinfI
<b>Le35</b>	M7b2	129 183C 189 223 297 298 311	150 199 263 309+CC 489 750	+5176AluI; +9820HinfI; 10345, 10398, 10400
Le485	M7b2	129 189 223 297 298	150 199 263 489 750	
Le1349	M7c	172 223 291 295 311 519	146 153 263 309+C 489 523-524d 750	
Le497	M7c1	183C 189 223 274 295 519	146 152 199 263 309+CC 489 523-524d 750	

Le529	M7c1	223 295 519 527	146 152 199 263 309+C 489 523-524d 750	
Le731	M7c1	172 223 295 519	146 199 263 309+CC 489 523-524d 750	
Le980	M7c1	223 293 295 519	146 199 263 309+C 489 523-524d 750	
Le262	M7c1'2	223 249 295 519	146 152 199 263 309+C 489 523-524d 750	+9820HinfI
Le97	M7c1'2	172 223 295 519	146 152 199 263 489 523-524d 750	+9820HinfI
Le124	M7c3	519	146A 199 263 309+CC 489 523-524d 750	+9820HinfI
Le1346	M7c3	223 293T 295 362 519	72 146 199 263 309+C 489 523-524d 750	
Le238 <sup>b</sup>	M7c3	183C 189 274 295 519	146 152 199 263 309+C 489 523-524d 750	
Le47	M7c3	519	146A 183 199 204 263 489 523-524d 750	+9820HinfI
Le586	M7c3	519	146A 199 204 263 489 523-524d 750	
Le1329	M8a	134 184 189 223 298 319	195 263 309+CC 489 750	
<b>Le266</b>	M8a	134 184 189 223 298 319	195 263 309+CC 489 750	
Le719	M8a	42 223 298 319	185 203 263 489 750	+5176AluI; -9820HinfI; 10398, 10400
Le251	M8a1	185 223 260 298 311 519	152 249d 263 309+CC 489 593 709 750	
<b>Le1031</b>	M8a2	184 223 298 319	263 309+C 489 750	
Le288	M8a2	93 134 184 223 298 319 519	263 309+C 489 750	
Le381	M8a2	134 184 223 298 319	263 309+C 489 750	
Le548	M8a2	184 223 271 298 319	152 195 263 489 750	
Le84	M8a2	134 184 189 223 298 319	195 263 309+CC 489 750	+5176AluI
<b>Le258</b>	M8a2b	184 223 298 319	152 263 309+C 489 750	
Le393	M9a	223 234 294 316	153 263 309+C 489 750	
Le1014	N9a	51 223 257A 261	150 185 263 309+C 750	
Le54	N9a	183C 189 223 257A 261	150 263 309+CC 750	
Le874	N9a	189 223 257A	150 263 309+C 750	
Le675	R11	92 145 182C 183C 189 311 390 519	185 189 195 263 709 750 789	
Le771	R11	182C 183C 189 290 311 390	151 152 185 189 234 263 309+C 709 750	+5176AluI
Le537	U2b	51 93 209 239 263 311 352 353	146 152 234 263 292 309+CC 750	
Le399	U4a	92 134 172 356 519	152 195 263 309+C 499 750	

Le1200	Y	86 126 176 231 399 519	146 152 263 750	
Le1261	Y1b	172 231 357 519	146 263 309+C 750	-663 <i>Hae</i> III; +5176 <i>Alu</i> I; -9820 <i>Hinf</i> I; 10238, 10398
Le1328	Y1b	126 231 249 266 319 399 519	146 263 309+CC 709 750	
Le1361	Y1b	126 231 266 519	146 263 309+C 750	
Le310	Y1b	126 231 384 519	146 207 263 309+C 750	
Le1159	Y2	126 231 311	151 263 309+C 482 523-524d 750	
Le584	Z	185 209 223 260 298 437	143 152 249d 263 309+CC 489 750	

Note – Sequence variation was scored relative to the revised Cambridge reference sequence (rCRS)<sup>1</sup>. Suffixes A, G, C, and T indicate transversions; suffixes “h”, “d”, and “+” indicate heteroplasmy, deletions, and insertions, respectively. Indels (insertion and deletion) are recorded at the last possible site. “+” and “-” denote the presence and absence of the restriction site, respectively. The deletion of the 9-bp (CCCCCTCTA) repeat in the COII/tRNA<sup>lys</sup> intergenic region is abbreviated as “9bpd”. When sequence information was not available, slots have been left blank. The samples that were analyzed for the entire mtDNA sequences are marked with grey shade, with the sample name in italic and bold font. Samples Le696, Le1269, and Le1244 were from our previous studies<sup>2,3</sup>. The mtDNA sequences reported in Ji et al.<sup>4</sup> were also included, with the exception of sample Le508, for we could not confirm the presence of m.11778G→A in this patient in this study.

<sup>a</sup> The coding region mutations and the 9-bp deletion were screened using the same method as described in Yao et al.<sup>5</sup>.

<sup>b</sup> Samples Le238 and Le877 contained missing information in regions 16200-16253 and 16194-16291, respectively.



**Table S2. Penetrance of LHON in 182 Families with m.11778G→A**

Sample	Haplo-group	Location	No. of subjects	No. of affected subjects		No. of unaffected subjects	
				Males	Females	Males	Females
Le1053	A	Shanxi	9	4	0	2	3
Le1096	A4	Hunan	8	2	1	2	3
Le296	A4	Hubei	7	2	1	3	1
Le67	A4	Hunan	11	2	1	3	5
Le917	A4	Hubei	19	4	2	3	10
Le977	A4	Hebei	6	3	1	1	1
Le216	A4	Fujian	4	2	0	1	1
Le615	A4	Hunan	6	3	0	1	2
Le1351	A4	Jiangxi	2	1	0	0	1
Le243	A4	Tianjin	3	1	1	0	1
Le458	B4	Fujian	13	3	1	7	2
Le856	B4	Jiangsu	7	3	0	1	3
Le546	B4a	Hebei	9	1	1	2	5
Le942	B4a	Guangdong	14	2	2	4	6
Le991	B4a	Hebei	15	1	1	3	10
Le1007	B4a	Hubei	6	1	1	3	1
Le1064	B4a'g	Guangdong	22	5	0	11	6
Le1321	B4a'g	Hunan	10	3	2	2	3
Le1003	B4b1	Unknown	7	2	1	1	3
Le353	B4b1	Inner Mongolia	4	3	0	0	1
Le780	B4b1a	Shanxi	2	1	1	0	0
Le269	B4b1a	Shandong	16	2	0	4	10
Le931	B4b1a	Jiangxi	8	2	0	3	3
Le804	B4b1b'c	Hebei	11	2	1	2	6
Le406	B4b'd	Hebei	9	2	2	1	4
Le1188	B4c1	Guangdong	19	4	3	4	8
Le782	B4c1b	Guangdong	13	3	3	3	4
Le1114	B4g	Guangdong	4	2	0	2	0
Le1344	B4g	Guangxi	8	2	1	4	1
WZ1	B5a	Fujian	38	6	0	16	16
Le74	B5a	Hunan	9	2	3	1	3
Le1121	B5a	Guangdong	8	1	1	3	3
Le18	B5a	Guangdong	9	3	1	2	3
Le416	B5a	Hunan	5	3	0	0	2
Le1365	B5a	Sichuan	10	1	1	2	6
Le1366	B5a	Zhejiang	6	0	2	2	2
Le555	B5a2	Jiangsu	2	1	1	0	0
Le487	B5b	Shanxi	25	3	1	5	16
Le246	B5b	Guangdong	3	1	0	1	1
Le51	C	Guangdong	8	3	2	2	1

Le534	C	Henan	12	5	1	4	2
Le767	C	Henan	7	2	0	1	4
Le867	C	Heilongjiang	3	2	0	0	1
Le912	C	Cambodia	3	2	0	0	1
Le204	C	Hebei	4	3	0	0	1
Le889	C	Hebei	9	3	0	2	4
Le1278	D4	Ningxia	11	2	1	3	5
Le854	D4	Guangdong	10	0	2	5	3
Le394	D4	Hebei	14	2	2	3	7
Le519	D4	Guangxi	8	1	1	3	3
Le565	D4	Hebei	24	1	1	8	14
Le638	D4	Hebei	2	1	1	0	0
Le954	D4	Hubei	2	1	1	0	0
Le1168	D4	Guangdong	10	2	1	2	5
Le894	D4	Hebei	7	2	1	2	2
Le930	D4	Hebei	18	2	1	6	9
Le976	D4	Hebei	33	4	2	10	17
Le1120	D4	Jiangxi	5	2	0	1	2
Le1191	D4	Hunan	1	1	0	0	0
Le1211	D4	Guangdong	3	1	0	2	0
Le385	D4	Hunan	7	1	0	3	3
Le442	D4	Hebei	3	1	1	0	1
Le604	D4	Hebei	20	4	0	5	11
Le698	D4	Hebei	1	1	0	0	0
Le812	D4	Hunan	5	2	0	2	1
Le952	D4	Beijing	10	2	0	4	4
Le1357	D4	Shandong	11	2	1	6	2
Le1367	D4	Hubei	13	3	2	5	3
Le631	D4	Henan	13	2	2	6	3
Le655	D4a	Hebei	5	0	2	2	1
Le457	D4a	Hebei	6	2	1	2	1
Le343	D4a	Jiangxi	12	3	0	3	6
Le392	D4a	Unknown	4	2	0	1	1
Le811	D4a3	Shandong	7	1	1	2	3
Le998	D4b1	Shandong	11	2	0	3	6
Le539	D4b1b	Hunan	13	3	0	4	6
WZ3	D4b1b2	Jiangsu	9	4	2	0	3
Le78	D4b1c	Guangdong	4	2	1	0	1
WZ5	D4b2b	Unknown	13	4	1	4	4
Le285	D4b2b	Shanxi	12	2	1	6	3
Le422	D4b2b	Zhejiang	8	2	0	3	3
Le1017	D4e1a1	Anhui	4	1	1	1	1
Le1013	D4g2a	Hebei	8	1	2	3	2
Le1140	D4h	Hunan	14	3	1	7	3

Le1139	D4h	Hunan	9	3	0	3	3
WZ12	D4j	Zhejiang	28	7	3	7	11
Le884	D4k	Hebei	5	1	2	0	2
Le1215	D4k	Hebei	13	4	3	0	6
Le423	D4k	Hebei	16	4	2	2	8
Le877	D5	Shandong	10	2	1	4	3
WZ2	D5a	Anhui	13	6	2	1	4
Le1012	D5a2	Hebei	20	3	10	4	3
Le1057	D5a2	Hebei	4	2	0	0	2
Le563	D5a2a	Guangdong	7	2	1	0	4
Le1108	D5a2a	Sichuan	21	4	0	5	12
Le1231	D5b	Hubei	10	1	3	0	6
Le873	D5b	Henan	4	2	1	0	1
Le1104	D5b	Unknown	16	3	1	5	7
Le141	D5b	Hebei	3	2	0	0	1
Le465	D5b	Guangdong	8	2	0	2	4
Le835	D5b	Guangxi	13	1	0	5	7
Le853	D5b	Hubei	6	2	1	2	1
Le90	D5b	Guangdong	10	2	0	1	7
Le779	D5b	Unknown	16	3	3	5	5
WZ4	F1	Zhejiang	8	3	0	2	3
Le699	F1a1	Hebei	4	2	1	0	1
Le1048	F1b	Hunan	7	2	0	0	5
Le886	F2a3	Hebei	8	0	2	3	3
Le554	G	Henan	9	0	2	0	7
Le953	G1	Hebei	5	2	1	0	2
Le1355	G1a1	Jiangxi	4	1	1	1	1
Le1269	G2a	Henan	30	9	7	5	9
Le553	G2a1	Hebei	7	2	1	3	1
Le1244	G2a1	Jiangxi	13	3	0	4	6
Le1336	G2a2	Hebei	10	7	0	0	3
Le696	G2b	Hebei	14	8	3	2	1
Le647	G3	Hebei	21	2	3	8	8
Le145	G3	Unknown	5	2	1	0	2
Le237	G3	Jilin	5	2	1	0	2
Le1081	G3a	Hebei	16	3	1	3	9
Le245	M10	Guangdong	7	3	1	2	1
Le1295	M10	Hebei	33	10	3	9	11
WZ6	M10a	Unknown	30	6	4	12	8
Le255	M10a1	Henan	13	2	1	3	7
Le515	M10a1	Hebei	6	2	0	1	3
Le580	M10a1	Jiangsu	7	2	0	1	4
Le1136	M10a1	Hubei	7	2	0	2	3
Le549	M10b	Anhui	10	3	1	3	3

Le918	M12	Hubei	17	4	3	4	6
Le869	M12	Hubei	18	4	2	5	7
Le978	M7b	Guangdong	6	5	0	0	1
Le1142	M7b1	Guangxi	7	1	1	2	3
Le265	M7b1	Hunan	9	3	3	0	3
Le611	M7b1	Guangxi	3	1	1	0	1
Le777	M7b1	Guangdong	5	1	1	3	0
Le217	M7b1	Guangdong	11	5	4	0	2
Le359	M7b1	Hebei	16	2	1	5	8
Le1074	M7b1	Jilin	7	4	0	1	2
Le1174	M7b1	Guangdong	7	3	0	1	3
Le666	M7b1	Guangdong	6	2	0	1	3
Le807	M7b1	Guangdong	8	3	0	0	5
Le1127	M7b1'2	Guangdong	16	2	0	5	9
Le924	M7b1'2	Guangdong	9	3	0	4	2
Le485	M7b2	Hebei	21	3	4	4	10
Le35	M7b2	Guangdong	5	3	0	1	1
Le1349	M7c	Hunan	9	3	0	3	3
Le529	M7c1	Anhui	12	1	3	3	5
Le731	M7c1	Hebei	9	1	2	3	3
Le497	M7c1	Hebei	17	2	1	7	7
Le980	M7c1	Guangdong	13	2	0	3	8
Le97	M7c1'2	Guangdong	9	3	1	3	2
Le262	M7c1'2	Guangdong	1	1	0	0	0
Le124	M7c3	Guangxi	19	2	0	7	10
Le47	M7c3	Guangdong	9	3	0	3	3
Le586	M7c3	Hebei	12	3	1	4	4
Le1346	M7c3	Hunan	8	1	1	6	0
Le238	M7c3	Beijing	4	3	0	0	1
Le719	M8a	Unknown	8	2	0	2	4
Le1329	M8a	Guangdong	14	2	0	6	6
Le266	M8a	Guangdong	17	2	0	7	8
Le251	M8a1	Henan	5	2	3	0	0
Le381	M8a2	Hebei	14	0	2	5	7
Le548	M8a2	Hebei	8	0	1	4	3
Le288	M8a2	Henan	9	2	1	2	4
Le1031	M8a2	Henan	18	2	0	4	12
Le84	M8a2	Guangdong	14	2	0	6	6
Le258	M8a2b	Shandong	5	1	0	3	1
Le393	M9a	Hebei	8	1	3	2	2
Le1014	N9a	Hebei	10	3	0	3	4
Le874	N9a	Henan	18	2	2	7	7
Le54	N9a	Guangdong	6	2	0	2	2
Le675	R11	Hebei	7	4	0	1	2

Le771	R11	Shanxi	2	2	0	0	0
Le537	U2b	Xinjiang	15	2	0	4	9
Le399	U4a	Unknown	14	1	0	4	9
Le1200	Y	Guangdong	13	2	0	6	5
Le1261	Y1b	Sichuan	10	2	0	1	7
Le310	Y1b	Tianjin	16	4	0	5	7
Le1328	Y1b	Beijing	2	2	0	0	0
Le1361	Y1b	Guangdong	11	2	1	5	3
Le1159	Y2	Shandong	8	2	0	3	3
Le584	Z	Henan	9	1	1	3	4
Total			1859	436	183	504	736

Note – Samples WZ1-WZ6 and WZ12 were taken from the published resources<sup>6-10</sup>. Samples Le696, Le1269, and Le1244 were from our previous studies<sup>2,3</sup>.

## Supplemental References

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