

# Supplemental Material: HaploGrep 2

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### Algorithm 1: Calculation of phylogenetic weights per variant in the new version of HaploGrep 2

Let the index set  $I$  refer to all mutations found at least once in Phylotree, and for each  $i \in I$  let  $f_i$  the absolute frequency of mutation  $i$  on the current build of Phylotree.

Let  $F = \max_i f_i$  be the maximum of all those frequencies.

For  $i \in I$  put  $w_i = 1 + (9/\ln F) \cdot [\ln F - \ln f_i] = 10 - 9 \ln f_i / \ln F$  (round to 1 decimal digit).

Conversely, given  $1 \leq w \leq 10$ , the corresponding frequency  $f$  is calculated as  $f = F^{(10-w)/9}$ .

*In particular, for the extreme 152 transition we have minimum weight 1,*

*for the next 16311 transition we get weight ~1.7,*

*for a mutation with score 2 we get weight ~8.8*

*for the score 1 mutations we finally obtain the maximum weight 10.*

Suppl. Table 1: Mitochondrial DNA polymorphisms, the phylogenetic weights according Algorithm 1 and the occurrence of the polymorphism in Phylotree 17 (<http://phylotree.org/>).

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Polymorphism	Weight	Occurrence	198T	4.6	24	16213A	5.5	14
152C	1	197	16260T	4.7	23	16356C	5.5	14
16311C	1.6	138	16320T	4.7	22	12771A	5.5	14
146C	1.8	122	16148T	4.7	22	7337A	5.5	14
195C	2	113	16292T	4.8	21	4216C	5.5	14
16189C	2	110	16399G	4.8	21	12007A	5.5	14
16362C	2.5	81	16357C	4.9	20	961C	5.5	14
16129A	2.6	76	10398G	4.9	20	15244G	5.5	14
150T	2.7	74	153G	5	19	5773A	5.5	14
709A	3	60	13105G	5	19	15930A	5.5	14
16172C	3.2	55	513A	5	19	16300G	5.5	14
16093C	3.2	55	9254G	5	19	5585A	5.5	14
16278T	3.4	49	8281d	5	19	16301T	5.5	14
11914A	3.4	48	8282d	5	19	12406A	5.5	14
207A	3.4	48	8283d	5	19	16192T!	5.5	14
204C	3.6	44	8284d	5	19	15314A	5.6	13
16291T	3.6	42	8285d	5	19	16235G	5.6	13
199C	3.7	41	8286d	5	19	16193T	5.6	13
189G	3.7	40	8287d	5	19	73G	5.6	13
13708A	3.8	39	8288d	5	19	1438G!	5.6	13
16319A	3.8	39	8289d	5	19	14560A	5.6	13
16256T	3.8	38	6620C	5.1	18	1888A	5.6	13
151T	3.8	38	15884A	5.1	18	16368C	5.6	13
16145A	3.9	37	16218T	5.1	18	16153A	5.6	13
5460A	3.9	36	16239T	5.1	18	16168T	5.6	13
16234T	3.9	36	16527T	5.1	18	16288C	5.6	13
16274A	3.9	35	16126C	5.1	18	3591A	5.6	13
16390A	4	33	16169T	5.1	18	15172A	5.6	13
573.XC	4.1	32	64T	5.2	17	12358G	5.6	13
16086C	4.1	32	16295T	5.2	17	15236G	5.6	13
15924G	4.2	31	13759A	5.2	17	10084C	5.6	13
16261T	4.2	31	11016A	5.2	17	13135A	5.6	13
16209C	4.3	29	16184T	5.2	17	7853A	5.6	13
143A	4.3	29	16129A!	5.2	17	16324C	5.6	13
16294T	4.3	28	16290T	5.3	16	16179T	5.6	13
1719A	4.4	27	16176T	5.3	16	234G	5.6	13
152C!	4.5	26	15758G	5.3	16	16293G	5.8	12
16355T	4.5	26	16270T	5.3	16	1462A	5.8	12
16325C	4.5	26	16287T	5.3	16	3316A	5.8	12
200G	4.5	26	16092C	5.3	16	12346T	5.8	12
16249C	4.5	26	1598A	5.3	16	14053G	5.8	12
16223T!	4.5	26	3834A	5.4	15	4688C	5.8	12
16051G	4.5	25	249d	5.4	15	9966A	5.8	12
93G	4.5	25	194T	5.4	15	16242T	5.8	12
8251A	4.5	25	3010A	5.4	15	9055A	5.8	12
16192T	4.5	25	10685A	5.4	15	16243C	5.8	12
185A	4.5	25	14569A	5.4	15	16298C	5.8	12
16266T	4.6	24	16140C	5.4	15	228A	5.8	12
5147A	4.6	24	14470C	5.4	15	14364A	5.8	12
16111T	4.6	24	195C!	5.4	15	10373A	5.8	12
16304C	4.6	24	5899.XC	5.5	14	13145A	5.8	12

14323A	5.8	12	9554A	6.3	9	14040A	6.5	8
16187T	5.8	12	9300A	6.3	9	16265C	6.5	8
16136C	5.8	12	8856A	6.3	9	12630A	6.5	8
16526A	5.8	12	5231A	6.3	9	13827G	6.5	8
263G!	5.8	12	12940A	6.3	9	15466A	6.5	8
14305A	5.9	11	5054A	6.3	9	5108C	6.5	8
16114T	5.9	11	11084G	6.3	9	6164T	6.5	8
4823C	5.9	11	5471A	6.3	9	5263T	6.5	8
183G	5.9	11	6293C	6.3	9	14016A	6.5	8
8473C	5.9	11	593C	6.3	9	10143A	6.5	8
13590A	5.9	11	13434G	6.3	9	5237A	6.5	8
12172G	5.9	11	3705A	6.3	9	12612G	6.5	8
16248T	5.9	11	7805A	6.3	9	13879C	6.5	8
13194A	5.9	11	13359A	6.3	9	3394C	6.5	8
8020A	5.9	11	6962A	6.3	9	15514C	6.5	8
16265G	5.9	11	14587G	6.3	9	14905A	6.5	8
15670C	5.9	11	9548A	6.3	9	214G	6.5	8
12397G	5.9	11	9545G	6.3	9	13966G	6.5	8
8994A	5.9	11	12810G	6.3	9	9180G	6.5	8
9932A	5.9	11	16188T	6.3	9	11176A	6.5	8
15784C	5.9	11	16245T	6.3	9	499A	6.5	8
13368A	5.9	11	8277C	6.3	9	8155A	6.5	8
16271C	5.9	11	16214T	6.3	9	16286T	6.5	8
16224C	5.9	11	930A	6.3	9	1442A	6.5	8
16185T	5.9	11	16311C!	6.3	9	15326G!	6.5	8
16264T	5.9	11	4655A	6.3	9	3027C	6.5	8
6260A	6.1	10	3438A	6.3	9	5894G	6.5	8
13934T	6.1	10	5492C	6.3	9	16497G	6.5	8
16167T	6.1	10	8790A	6.3	9	94A	6.5	8
6261A	6.1	10	16147T	6.3	9	3693A	6.5	8
16263C	6.1	10	2706G!	6.3	9	13651G	6.5	8
3531A	6.1	10	14182C	6.3	9	15106A	6.5	8
8705C	6.1	10	9438A	6.3	9	3777C	6.5	8
3915A	6.1	10	1709A	6.3	9	153G!	6.5	8
182T	6.1	10	5580C	6.3	9	16187T!	6.5	8
10915C	6.1	10	12618A	6.3	9	16166G	6.7	7
11440A	6.1	10	318C	6.3	9	14693G	6.7	7
7521A	6.1	10	146C!	6.3	9	1842G	6.7	7
16284G	6.1	10	310C	6.3	9	7961C	6.7	7
11314G	6.1	10	14110C	6.3	9	16259T	6.7	7
15217A	6.1	10	12414C	6.3	9	16360T	6.7	7
7598A	6.1	10	16400T	6.5	8	16066G	6.7	7
13500C	6.1	10	16124C	6.5	8	14148G	6.7	7
15110A	6.1	10	16465T	6.5	8	4454C	6.7	7
7861C	6.1	10	11893G	6.5	8	471C	6.7	7
16309G	6.1	10	9380A	6.5	8	10750G	6.7	7
235G	6.1	10	6216C	6.5	8	13768C	6.7	7
15148A	6.1	10	2626C	6.5	8	11377A	6.7	7
13928C	6.1	10	15941C	6.5	8	4924A	6.7	7
6221C	6.1	10	7765G	6.5	8	11204C	6.7	7
12501A	6.1	10	3666A	6.5	8	14687G	6.7	7
16354T	6.3	9	14861A	6.5	8	217C	6.7	7
3396C	6.3	9	10325A	6.5	8	4025T	6.7	7
8843C	6.3	9	11002G	6.5	8	16222T	6.7	7
9053A	6.3	9	10454C	6.5	8	2352C	6.7	7
16316G	6.3	9	11944C	6.5	8	8269A	6.7	7
9377G	6.3	9	12372A	6.5	8	482C	6.7	7
4562G	6.3	9	8188G	6.5	8	456T	6.7	7

710C	6.7	7	15497A	7	6	6392C	7	6
8557A	6.7	7	16240G	7	6	2833G	7	6
5821A	6.7	7	8572A	7	6	16318G	7	6
1005C	6.7	7	3483A	7	6	11299C	7	6
15883A	6.7	7	11696A	7	6	15479C	7	6
827G	6.7	7	12507G	7	6	15629C	7	6
11167G	6.7	7	14133G	7	6	10978G	7	6
16342C	6.7	7	11809C	7	6	4093G	7	6
13830C	6.7	7	7403G	7	6	6719C	7	6
10101C	6.7	7	12373G	7	6	2416C	7	6
16207G	6.7	7	16217C	7	6	16189C!	7	6
14502C	6.7	7	12957C	7	6	15301A	7	6
12696C	6.7	7	15470C	7	6	12234G	7	6
15721C	6.7	7	16104T	7	6	16318T	7	6
15927A	6.7	7	12236A	7	6	16463G	7	6
12477C	6.7	7	10410C	7	6	16327T	7	6
3421A	6.7	7	7859A	7	6	13656C	7	6
6023A	6.7	7	5319G	7	6	16114A	7	6
9950C	6.7	7	10754G	7	6	723G	7	6
16069T	6.7	7	373G	7	6	16362C!	7	6
6755A	6.7	7	7202G	7	6	6680C	7	6
9266A	6.7	7	15928A	7	6	16017C	7	6
4703C	6.7	7	15940C	7	6	6752G	7	6
8772C	6.7	7	11887A	7	6	225A!	7	6
15067C	6.7	7	6152C	7	6	951A	7.3	5
4991A	6.7	7	114T	7	6	13395G	7.3	5
15043A	6.7	7	4646C	7	6	127C	7.3	5
6383A	6.7	7	16344T	7	6	10810C	7.3	5
9755A	6.7	7	533G	7	6	3796G	7.3	5
3398C	6.7	7	13542G	7	6	7960G	7.3	5
4491A	6.7	7	6182A	7	6	6629G	7.3	5
215G	6.7	7	6253C	7	6	960.XC	7.3	5
13722G	6.7	7	5442C	7	6	3849A	7.3	5
10172A	6.7	7	16298C!	7	6	316A	7.3	5
1503A	6.7	7	5656G	7	6	10256C	7.3	5
385G	6.7	7	131C	7	6	14178C	7.3	5
6815C	6.7	7	15115C	7	6	5483C	7.3	5
8440G	6.7	7	12879C	7	6	16037G	7.3	5
15734A	6.7	7	3290C	7	6	15553A	7.3	5
4820A	6.7	7	14544A	7	6	6734A	7.3	5
15355A	6.7	7	9128C	7	6	980C	7.3	5
6366A	6.7	7	3918A	7	6	12136C	7.3	5
16223T	6.7	7	15613G	7	6	8701G	7.3	5
4048A	6.7	7	7424G	7	6	485C	7.3	5
455.1T	6.7	7	11151T	7	6	1811G	7.3	5
8614C	6.7	7	188G	7	6	5558G	7.3	5
8027A	6.7	7	8865A	7	6	12681C	7.3	5
6297C	6.7	7	4232C	7	6	789C	7.3	5
16381C	6.7	7	8149G	7	6	11590G	7.3	5
182T!	6.7	7	7364G	7	6	10589A	7.3	5
12127A	7	6	13681G	7	6	15530C	7.3	5
210G	7	6	8152A	7	6	2156.1A	7.3	5
16075C	7	6	7789A	7	6	8383C	7.3	5
2887C	7	6	9899C	7	6	8563G	7.3	5
7299G	7	6	73G!	7	6	769A	7.3	5
6267A	7	6	7269A	7	6	11969A	7.3	5
14581C	7	6	6026A	7	6	10463C	7.3	5
9181G	7	6	9233C	7	6	44.1C	7.3	5

9329A	7.3	5	6446A	7.3	5	72C	7.6	4
14831A	7.3	5	14002G	7.3	5	257G	7.6	4
15412C	7.3	5	466C	7.3	5	16219G	7.6	4
8842G	7.3	5	10586A	7.3	5	8730G	7.6	4
9449T	7.3	5	3434G	7.3	5	4767G	7.6	4
12651A	7.3	5	12950G	7.3	5	13326C	7.6	4
4011T	7.3	5	12468C	7.3	5	3548C	7.6	4
15218G	7.3	5	16255A	7.3	5	5746A	7.6	4
15109C	7.3	5	7389C	7.3	5	12026G	7.6	4
5261A	7.3	5	15061G	7.3	5	11864C	7.6	4
9156G	7.3	5	16154C	7.3	5	15323A	7.6	4
15519C	7.3	5	11353C	7.3	5	11339C	7.6	4
11150A	7.3	5	9682C	7.3	5	16468C	7.6	4
16299G	7.3	5	8567C	7.3	5	13470G	7.6	4
7444A	7.3	5	4937C	7.3	5	16212G	7.6	4
14118G	7.3	5	11465C	7.3	5	6722A	7.6	4
9758C	7.3	5	12361G	7.3	5	8618C	7.6	4
10646A	7.3	5	249G	7.3	5	5393C	7.6	4
10283G	7.3	5	8167C	7.3	5	8410T	7.6	4
8387A	7.3	5	236C	7.3	5	16302G	7.6	4
13269G	7.3	5	5899.1C	7.3	5	1664A	7.6	4
14793G	7.3	5	16166d	7.3	5	7762A	7.6	4
5250C	7.3	5	3552C	7.3	5	10295G	7.6	4
15346A	7.3	5	16134T	7.3	5	3221G	7.6	4
8584A	7.3	5	10700G	7.3	5	13404C	7.6	4
6413C	7.3	5	4113A	7.3	5	1211A	7.6	4
15454C	7.3	5	15944d	7.3	5	15769G	7.6	4
4047C	7.3	5	16173T	7.3	5	13967T	7.6	4
16335G	7.3	5	2483C	7.3	5	408A	7.6	4
5153G	7.3	5	13710G	7.3	5	12441C	7.6	4
11365C	7.3	5	16048A	7.3	5	15204C	7.6	4
3397G	7.3	5	16293C	7.3	5	10310A	7.6	4
4917G	7.3	5	13437C	7.3	5	5004C	7.6	4
6671C	7.3	5	5046A	7.3	5	9123A	7.6	4
9861C	7.3	5	1243C	7.3	5	14325C	7.6	4
5964C	7.3	5	3505G	7.3	5	9615C	7.6	4
9667G	7.3	5	14668T	7.3	5	7581C	7.6	4
8222C	7.3	5	106d	7.3	5	10166C	7.6	4
14798C	7.3	5	107d	7.3	5	9386C	7.6	4
13281C	7.3	5	108d	7.3	5	14488C	7.6	4
16163G	7.3	5	109d	7.3	5	5082C	7.6	4
12561A	7.3	5	110d	7.3	5	5302C	7.6	4
5262A	7.3	5	6378C	7.3	5	239C	7.6	4
16231C	7.3	5	151T!	7.3	5	11611A	7.6	4
16241G	7.3	5	8701G!	7.3	5	10237C	7.6	4
14769G	7.3	5	16289G	7.3	5	6185C	7.6	4
16195C	7.3	5	4080C	7.6	4	1393A	7.6	4
4959A	7.3	5	5978G	7.6	4	15862C	7.6	4
14233G	7.3	5	2442C	7.6	4	15459T	7.6	4
3882A	7.3	5	16183G	7.6	4	11992C	7.6	4
3826C	7.3	5	8598C	7.6	4	13032G	7.6	4
5426C	7.3	5	4639C	7.6	4	291.1A	7.6	4
8838A	7.3	5	10993A	7.6	4	11827C	7.6	4
10289G	7.3	5	534T	7.6	4	15040T	7.6	4
247A	7.3	5	459d	7.6	4	7645C	7.6	4
16240C	7.3	5	14212C	7.6	4	13020C	7.6	4
13635C	7.3	5	15766G	7.6	4	2772T	7.6	4
3105G	7.3	5	15299C	7.6	4	15287C	7.6	4

16272G	7.6	4	12557T	7.6	4	16174T	7.6	4
7830A	7.6	4	7897A	7.6	4	10654T	7.6	4
14239T	7.6	4	279C	7.6	4	14577C	7.6	4
6827C	7.6	4	12408C	7.6	4	13637G	7.6	4
8206A	7.6	4	14605G	7.6	4	6899A	7.6	4
16352C	7.6	4	8270T	7.6	4	11653G	7.6	4
3197C	7.6	4	16257T	7.6	4	4775G	7.6	4
11143T	7.6	4	1406C	7.6	4	14034C	7.6	4
3847C	7.6	4	4225G	7.6	4	15626T	7.6	4
15562G	7.6	4	2755G	7.6	4	6359G	7.6	4
9101C	7.6	4	13215C	7.6	4	7642A	7.6	4
3507T	7.6	4	9716C	7.6	4	3714G	7.6	4
12192A	7.6	4	6131G	7.6	4	16278T!	7.6	4
4164G	7.6	4	11050C	7.6	4	10397G	7.6	4
12753G	7.6	4	13212T	7.6	4	5081C	7.6	4
14180C	7.6	4	2392C	7.6	4	16343G	7.6	4
12438C	7.6	4	16108T	7.6	4	334C	7.6	4
13350G	7.6	4	14476A	7.6	4	12609C	7.6	4
7270C	7.6	4	11065G	7.6	4	10819G	7.6	4
508G	7.6	4	14971C	7.6	4	8260C	7.6	4
15431A	7.6	4	9947A	7.6	4	14094C	7.6	4
16067T	7.6	4	13602C	7.6	4	7055G	7.6	4
4596A	7.6	4	10031C	7.6	4	11025C	7.6	4
7664A	7.6	4	11061T	7.6	4	8005C	7.6	4
2308G	7.6	4	150T!	7.6	4	11017C	7.6	4
13650T	7.6	4	3391A	7.6	4	9938C	7.6	4
11935C	7.6	4	1692G	7.6	4	63C	7.6	4
7843G	7.6	4	4742C	7.6	4	14308C	7.6	4
11101G	7.6	4	10876G	7.6	4	14384A	7.6	4
95C	7.6	4	12732C	7.6	4	4856C	7.6	4
9647C	7.6	4	4814T	7.6	4	8485A	7.6	4
3644C	7.6	4	9098C	7.6	4	10790C	7.6	4
5557C	7.6	4	14063C	7.6	4	5581G	7.6	4
5378G	7.6	4	16164G	7.6	4	15663C	7.6	4
4769G!	7.6	4	4129G	7.6	4	1415A	7.6	4
12519C	7.6	4	9575A	7.6	4	8503C	7.6	4
9494G	7.6	4	3537G	7.6	4	15313C	7.6	4
11287C	7.6	4	16262T	7.6	4	4541A	7.6	4
15511C	7.6	4	103A	7.6	4	8158G	7.6	4
8404C	7.6	4	11437C	7.6	4	14371C	7.6	4
12311C	7.6	4	204C!	7.6	4	8093C	7.6	4
3866C	7.6	4	203A	7.6	4	8047C	7.6	4
8659G	7.6	4	3565G	7.6	4	9064A	7.6	4
9120G	7.6	4	11404G	7.6	4	8389G	7.6	4
2387C	7.6	4	9077C	7.6	4	8793C	7.6	4
6249A	7.6	4	15458C	7.6	4	16215G	7.6	4
10398G!	7.6	4	7158G	7.6	4	1048T	7.6	4
4853A	7.6	4	11009C	7.6	4	9299G	8.1	3
3447G	7.6	4	14000A	7.6	4	6632C	8.1	3
15672C	7.6	4	16233G	7.6	4	12954C	8.1	3
10966C	7.6	4	125C	7.6	4	72G	8.1	3
16438A	7.6	4	5460A!	7.6	4	575T	8.1	3
10321C	7.6	4	6881G	7.6	4	4715G	8.1	3
9111C	7.6	4	4561C	7.6	4	4659A	8.1	3
14284T	7.6	4	9477A	7.6	4	4592C	8.1	3
16304C!	7.6	4	15289C	7.6	4	16162G	8.1	3
5201C	7.6	4	16144C	7.6	4	14978G	8.1	3
5836G	7.6	4	1822C	7.6	4	8839A	8.1	3

5747G	8.1	3	8718G	8.1	3	15223T	8.1	3
12130C	8.1	3	9325C	8.1	3	4654T	8.1	3
4452C	8.1	3	16170G	8.1	3	11641G	8.1	3
9230C	8.1	3	10034C	8.1	3	14344G	8.1	3
3504C	8.1	3	10007C	8.1	3	9033G	8.1	3
9007G	8.1	3	7870C	8.1	3	6647G	8.1	3
8764A	8.1	3	6040G	8.1	3	13785T	8.1	3
5979A	8.1	3	7356A	8.1	3	2361A	8.1	3
10679G	8.1	3	4336C	8.1	3	2056A	8.1	3
14902T	8.1	3	721C	8.1	3	1809C	8.1	3
5301G	8.1	3	11719A	8.1	3	6932G	8.1	3
8023C	8.1	3	12864C	8.1	3	14025C	8.1	3
3745A	8.1	3	4916G	8.1	3	8812G	8.1	3
3511G	8.1	3	3753C	8.1	3	8869G	8.1	3
13050G	8.1	3	1520C	8.1	3	227G	8.1	3
11087C	8.1	3	3819T	8.1	3	9210G	8.1	3
9653C	8.1	3	13614G	8.1	3	11899C	8.1	3
6353G	8.1	3	16391A	8.1	3	10609C	8.1	3
9468G	8.1	3	10595C	8.1	3	16327A	8.1	3
13431T	8.1	3	11253C	8.1	3	13933G	8.1	3
14221C	8.1	3	41T	8.1	3	11476T	8.1	3
12366G	8.1	3	15942C	8.1	3	12279G	8.1	3
4313C	8.1	3	11020G	8.1	3	739T	8.1	3
9148C	8.1	3	2283T	8.1	3	2758A	8.1	3
8470G	8.1	3	8573A	8.1	3	8545A	8.1	3
8723A	8.1	3	3145G	8.1	3	11257T	8.1	3
9078C	8.1	3	16525G	8.1	3	3972G	8.1	3
4137T	8.1	3	4310G	8.1	3	12741T	8.1	3
14869A	8.1	3	12153T	8.1	3	7256T	8.1	3
6272G	8.1	3	16221T	8.1	3	16184A	8.1	3
8950A	8.1	3	5918C	8.1	3	1391C	8.1	3
13386C	8.1	3	13680T	8.1	3	8887G	8.1	3
460C	8.1	3	15712G	8.1	3	7657C	8.1	3
5054C	8.1	3	3744G	8.1	3	12654G	8.1	3
9708C	8.1	3	12662G	8.1	3	13914A	8.1	3
8308G	8.1	3	11485C	8.1	3	489C	8.1	3
7849T	8.1	3	10202T	8.1	3	2158C	8.1	3
16220C	8.1	3	12870T	8.1	3	12396C	8.1	3
8164T	8.1	3	8296G	8.1	3	4772C	8.1	3
10316G	8.1	3	8227C	8.1	3	15442G	8.1	3
14914G	8.1	3	57C	8.1	3	2707C	8.1	3
9581C	8.1	3	14953T	8.1	3	8460G	8.1	3
6776C	8.1	3	16366T	8.1	3	10274C	8.1	3
3992T	8.1	3	8592A	8.1	3	9192A	8.1	3
735G	8.1	3	16258C	8.1	3	8853G	8.1	3
9196A	8.1	3	14968C	8.1	3	15119A	8.1	3
417A	8.1	3	16227G	8.1	3	11177T	8.1	3
5911T	8.1	3	14203G	8.1	3	16186T	8.1	3
6425C	8.1	3	8715C	8.1	3	7711C	8.1	3
12811C	8.1	3	5495C	8.1	3	10598G	8.1	3
3345C	8.1	3	5582G	8.1	3	10345C	8.1	3
9117C	8.1	3	8200C	8.1	3	15262C	8.1	3
5999C	8.1	3	12133T	8.1	3	12634G	8.1	3
8937C	8.1	3	15617A	8.1	3	16126C!	8.1	3
5480G	8.1	3	5498G	8.1	3	1007A	8.1	3
10535C	8.1	3	9039A	8.1	3	13392C	8.1	3
4386C	8.1	3	11560G	8.1	3	5774C	8.1	3
10724C	8.1	3	9612A	8.1	3	15257A	8.1	3

15191C	8.1	3	14290C	8.1	3	10203A	8.1	3
15596A	8.1	3	5539G	8.1	3	1700C	8.1	3
13753C	8.1	3	11928G	8.1	3	4553C	8.1	3
12171G	8.1	3	89C	8.1	3	8119C	8.1	3
13015C	8.1	3	15661T	8.1	3	1303A	8.1	3
7076G	8.1	3	16317G	8.1	3	11984C	8.1	3
15812A	8.1	3	4203G	8.1	3	7912A	8.1	3
15662G	8.1	3	4218C	8.1	3	6527G	8.1	3
159C	8.1	3	4907C	8.1	3	14927G	8.1	3
8697A	8.1	3	15777A	8.1	3	750G!	8.1	3
15607G	8.1	3	14518G	8.1	3	4936T	8.1	3
14281T	8.1	3	5093C	8.1	3	3337A	8.1	3
2380T	8.1	3	4977C	8.1	3	6407C	8.1	3
11647T	8.1	3	14766T!	8.1	3	1193C	8.1	3
7310C	8.1	3	11884G	8.1	3	16230G	8.1	3
16296T	8.1	3	11569C	8.1	3	6956C	8.1	3
13965C	8.1	3	16353T	8.1	3	3720G	8.1	3
15935G	8.1	3	7822G	8.1	3	5390G	8.1	3
6524C	8.1	3	498d	8.1	3	16181G	8.1	3
9948A	8.1	3	3996T	8.1	3	9656C	8.1	3
3338C	8.1	3	7340A	8.1	3	12720G	8.1	3
16297C	8.1	3	11875C	8.1	3	965.XC	8.1	3
8419C	8.1	3	15077A	8.1	3	1189C	8.1	3
16146G	8.1	3	12616C	8.1	3	6929G	8.1	3
15601C	8.1	3	11389T	8.1	3	2083C	8.1	3
7283C	8.1	3	3480G	8.1	3	629C	8.1	3
13260C	8.1	3	2831A	8.1	3	13111C	8.1	3
3203G	8.1	3	4117C	8.1	3	15799G	8.1	3
13834G	8.1	3	9305A	8.1	3	11470G	8.1	3
16294T!	8.1	3	2836T	8.1	3	6528T	8.1	3
4695C	8.1	3	1452C	8.1	3	1694C	8.1	3
11383C	8.1	3	16193d	8.1	3	7775A	8.1	3
16524G	8.1	3	5300T	8.1	3	6257A	8.1	3
246C	8.1	3	5592G	8.1	3	13401C	8.1	3
12432T	8.1	3	211G	8.1	3	325T	8.1	3
11380G	8.1	3	10493C	8.1	3	431A	8.1	3
5298G	8.1	3	11881T	8.1	3	11923G	8.1	3
11172G	8.1	3	7852A	8.1	3	6284G	8.1	3
4136G	8.1	3	9962A	8.1	3	6071C	8.1	3
12714C	8.1	3	4824G	8.1	3	10861C	8.1	3
3204T	8.1	3	960.1C	8.1	3	15900C	8.1	3
11197T	8.1	3	8784G	8.1	3	3513T	8.1	3
12882T	8.1	3	5744A	8.1	3	15803A	8.1	3
10042G	8.1	3	14750G	8.1	3	3336C	8.1	3
13422G	8.1	3	5417A	8.1	3	16171G	8.1	3
6515C	8.1	3	8860G!	8.1	3	16166C	8.1	3
9389G	8.1	3	14800T	8.1	3	15968C	8.1	3
8104C	8.1	3	1040C	8.1	3	199C!	8.1	3
7828G	8.1	3	338T	8.1	3	6713T	8.1	3
12338C	8.1	3	6480A	8.1	3	8943T	8.1	3
6791G	8.1	3	3816G	8.1	3	5291C	8.1	3
15908C	8.1	3	7624C	8.1	3	5063C	8.1	3
16365T	8.1	3	7569G	8.1	3	14152G	8.1	3
10238C	8.1	3	3738T	8.1	3	4928C	8.1	3
15905C	8.1	3	12121C	8.1	3	189G!	8.1	3
15221A	8.1	3	9509C	8.1	3	16292T!	8.1	3
14683G	8.1	3	374G	8.1	3	13263G	8.1	3
9809G	8.1	3	11116C	8.1	3	9127G	8.1	3



10245C	8.1	3	14302C	8.1	3	7604A	8.8	2
4363C	8.1	3	4197T	8.1	3	4859C	8.8	2
6806G	8.1	3	15622C	8.1	3	14258A	8.8	2
15211T	8.1	3	13174C	8.1	3	9356T	8.8	2
12354C	8.1	3	265C	8.1	3	9986A	8.8	2
6092C	8.1	3	16309G!	8.1	3	14129T	8.8	2
10801A	8.1	3	10920T	8.1	3	7975G	8.8	2
8392A	8.1	3	7972G	8.1	3	10314T	8.8	2
12092A	8.1	3	198T!	8.1	3	10410A	8.8	2
15226G	8.1	3	6716G	8.8	2	15646T	8.8	2
813G	8.1	3	263G	8.8	2	7412T	8.8	2
3736A	8.1	3	3388A	8.8	2	16456A	8.8	2
6896C	8.1	3	6173T	8.8	2	4435G	8.8	2
4248C	8.1	3	4769G	8.8	2	4674G	8.8	2
8548C	8.1	3	8679G	8.8	2	7471T	8.8	2
3308C	8.1	3	8065A	8.8	2	8429T	8.8	2
16111T!	8.1	3	113T	8.8	2	15844G	8.8	2
111d	8.1	3	444G	8.8	2	14467G	8.8	2
6374C	8.1	3	11140T	8.8	2	8478T	8.8	2
14944T	8.1	3	11233C	8.8	2	1531T	8.8	2
12816T	8.1	3	42.1G	8.8	2	9722C	8.8	2
5563A	8.1	3	8468T	8.8	2	12454A	8.8	2
15317A	8.1	3	11950G	8.8	2	15016T	8.8	2
3593C	8.1	3	15789T	8.8	2	4418C	8.8	2
11908G	8.1	3	8537G	8.8	2	5213T	8.8	2
2232.1A	8.1	3	7080C	8.8	2	6351C	8.8	2
16254G	8.1	3	8348G	8.8	2	13813A	8.8	2
5255T	8.1	3	9698C	8.8	2	14200C	8.8	2
10640C	8.1	3	8286C	8.8	2	260A	8.8	2
711C	8.1	3	327T	8.8	2	761G	8.8	2
12280G	8.1	3	11428T	8.8	2	15781T	8.8	2
8577G	8.1	3	10632C	8.8	2	3970T	8.8	2
10667C	8.1	3	4131G	8.8	2	7148C	8.8	2
6179A	8.1	3	15047A	8.8	2	14319C	8.8	2
4973C	8.1	3	9150G	8.8	2	15380G	8.8	2
5252A	8.1	3	10192T	8.8	2	8841T	8.8	2
7844G	8.1	3	13203G	8.8	2	12401T	8.8	2
14128G	8.1	3	8645G	8.8	2	3615G	8.8	2
11701C	8.1	3	10365A	8.8	2	493G	8.8	2
15449C	8.1	3	12636T	8.8	2	6266G	8.8	2
13563G	8.1	3	7379A	8.8	2	1018A	8.8	2
15697C	8.1	3	8512G	8.8	2	9316C	8.8	2
15184C	8.1	3	16111A	8.8	2	4024G	8.8	2
5951G	8.1	3	7196T	8.8	2	10044G	8.8	2
869T	8.1	3	12070A	8.8	2	10124C	8.8	2
459.1C	8.1	3	983T	8.8	2	14956C	8.8	2
463T	8.1	3	4883T	8.8	2	13889A	8.8	2
15951G	8.1	3	9110C	8.8	2	12642G	8.8	2
9165C	8.1	3	7119A	8.8	2	16286G	8.8	2
16269G	8.1	3	7013A	8.8	2	15833T	8.8	2
7673G	8.1	3	2851G	8.8	2	9804A	8.8	2
11959G	8.1	3	14420T	8.8	2	5051G	8.8	2
3588T	8.1	3	15394C	8.8	2	12384C	8.8	2
3828G	8.1	3	4733C	8.8	2	12648G	8.8	2
7954C	8.1	3	447G	8.8	2	15139C	8.8	2
16320T!	8.1	3	5249C	8.8	2	15175T	8.8	2
8964T	8.1	3	16312G	8.8	2	8343G	8.8	2
15440C	8.1	3	7295G	8.8	2	722T	8.8	2

4796T	8.8	2	11788T	8.8	2	9531G	8.8	2
12855G	8.8	2	4317d	8.8	2	11764G	8.8	2
16482G	8.8	2	2159C	8.8	2	295A	8.8	2
7325G	8.8	2	12904G	8.8	2	5823G	8.8	2
13953C	8.8	2	15658T	8.8	2	8388C	8.8	2
11155T	8.8	2	7382A	8.8	2	10658G	8.8	2
14185T	8.8	2	16220G	8.8	2	241G	8.8	2
4793G	8.8	2	8596G	8.8	2	1095C	8.8	2
9833C	8.8	2	8911C	8.8	2	13167G	8.8	2
10253C	8.8	2	3535C	8.8	2	16071T	8.8	2
5348T	8.8	2	5618C	8.8	2	9738A	8.8	2
3335C	8.8	2	16258G	8.8	2	12793C	8.8	2
14162A	8.8	2	9921A	8.8	2	8143C	8.8	2
11971T	8.8	2	6410T	8.8	2	462T	8.8	2
13101C	8.8	2	3200C	8.8	2	242T	8.8	2
12490G	8.8	2	4580A	8.8	2	13308G	8.8	2
13711A	8.8	2	14770T	8.8	2	271T	8.8	2
14071G	8.8	2	5420C	8.8	2	9083C	8.8	2
13572C	8.8	2	11337G	8.8	2	4696C	8.8	2
335G	8.8	2	16216G	8.8	2	11623T	8.8	2
14220G	8.8	2	15250T	8.8	2	13899C	8.8	2
7220C	8.8	2	16203G	8.8	2	13398G	8.8	2
14727C	8.8	2	8910T	8.8	2	5276G	8.8	2
9801A	8.8	2	14121T	8.8	2	4790G	8.8	2
16244A	8.8	2	8179G	8.8	2	13506T	8.8	2
15001C	8.8	2	9887C	8.8	2	222T	8.8	2
8266G	8.8	2	11620G	8.8	2	3456C	8.8	2
4107T	8.8	2	12795A	8.8	2	9145A	8.8	2
13620C	8.8	2	8982G	8.8	2	8868C	8.8	2
197G	8.8	2	72C!	8.8	2	5162C	8.8	2
55C	8.8	2	14629T	8.8	2	8727T	8.8	2
11410C	8.8	2	569T	8.8	2	7891T	8.8	2
13818C	8.8	2	8706G	8.8	2	12891T	8.8	2
14869C	8.8	2	4227G	8.8	2	13557G	8.8	2
2835T	8.8	2	6150A	8.8	2	15367T	8.8	2
10115C	8.8	2	4739T	8.8	2	4829G	8.8	2
186T	8.8	2	3547G	8.8	2	16063C	8.8	2
10211T	8.8	2	13143C	8.8	2	10497T	8.8	2
9620T	8.8	2	9336G	8.8	2	9632G	8.8	2
11152C	8.8	2	12972G	8.8	2	9052G	8.8	2
196C	8.8	2	11671G	8.8	2	11252G	8.8	2
11399C	8.8	2	1715T	8.8	2	13917G	8.8	2
186A	8.8	2	6248C	8.8	2	12123T	8.8	2
11191T	8.8	2	480C	8.8	2	2140A	8.8	2
14979C	8.8	2	549T	8.8	2	3213G	8.8	2
11447A	8.8	2	16038G	8.8	2	15836G	8.8	2
14553T	8.8	2	4254C	8.8	2	9725C	8.8	2
5892C	8.8	2	337G	8.8	2	9090C	8.8	2
7621C	8.8	2	9027T	8.8	2	9041G	8.8	2
7678C	8.8	2	58C	8.8	2	10499G	8.8	2
262T	8.8	2	13188T	8.8	2	319C	8.8	2
11989G	8.8	2	8292A	8.8	2	1850C	8.8	2
14149T	8.8	2	10652C	8.8	2	430C	8.8	2
11044T	8.8	2	5120G	8.8	2	11518A	8.8	2
13662T	8.8	2	60.1T	8.8	2	11386C	8.8	2
9530C	8.8	2	12542T	8.8	2	9103C	8.8	2
12633T	8.8	2	9337C	8.8	2	13419G	8.8	2
8756C	8.8	2	7471d	8.8	2	5915T	8.8	2

12672G	8.8	2	11215T	8.8	2	1041G	8.8	2
5493C	8.8	2	15565C	8.8	2	16175G	8.8	2
2404C	8.8	2	9944C	8.8	2	9605T	8.8	2
8290A	8.8	2	6599G	8.8	2	7241G	8.8	2
14950T	8.8	2	1927A	8.8	2	4755C	8.8	2
16242A	8.8	2	4732G	8.8	2	8702T	8.8	2
7391C	8.8	2	15954G	8.8	2	4122G	8.8	2
5414G	8.8	2	15193G	8.8	2	6119T	8.8	2
12308G	8.8	2	5508C	8.8	2	3766C	8.8	2
7783C	8.8	2	3202C	8.8	2	10248C	8.8	2
11266T	8.8	2	1734T	8.8	2	12400G	8.8	2
384G	8.8	2	7738C	8.8	2	3843G	8.8	2
97A	8.8	2	13749T	8.8	2	5899d	8.8	2
3867T	8.8	2	15022T	8.8	2	13740C	8.8	2
14500G	8.8	2	11326T	8.8	2	16152C	8.8	2
15853T	8.8	2	14218C	8.8	2	10792G	8.8	2
11812G	8.8	2	16291T!	8.8	2	3927G	8.8	2
2141C	8.8	2	4811G	8.8	2	7376T	8.8	2
1420C	8.8	2	6570T	8.8	2	16270G	8.8	2
55.1T	8.8	2	15418T	8.8	2	2220G	8.8	2
13743C	8.8	2	1009T	8.8	2	16131C	8.8	2
15445C	8.8	2	10005G	8.8	2	14783C	8.8	2
458T	8.8	2	5913A	8.8	2	3981G	8.8	2
1836G	8.8	2	14013G	8.8	2	11239G	8.8	2
10490C	8.8	2	11038G	8.8	2	546G	8.8	2
15090C	8.8	2	281G	8.8	2	6836T	8.8	2
5811G	8.8	2	8603C	8.8	2	6614C	8.8	2
11800G	8.8	2	8278.XC	8.8	2	11941G	8.8	2
8775T	8.8	2	9452A	8.8	2	15391T	8.8	2
9617G	8.8	2	5894C	8.8	2	3435T	8.8	2
15499T	8.8	2	16093C!	8.8	2	5441G	8.8	2
15787C	8.8	2	5465C	8.8	2	14088C	8.8	2
8230T	8.8	2	15746G	8.8	2	16266A	8.8	2
5277C	8.8	2	6905G	8.8	2	14989T	8.8	2
11818G	8.8	2	10364A	8.8	2	11149A	8.8	2
10496G	8.8	2	16261T!	8.8	2	5027T	8.8	2
14839G	8.8	2	16305G	8.8	2	15508T	8.8	2
1977C	8.8	2	1185T	8.8	2	103A!	8.8	2
507C	8.8	2	11407T	8.8	2	14959G	8.8	2
11467G	8.8	2	7058C	8.8	2	7771G	8.8	2
11778A	8.8	2	9977C	8.8	2	8467T	8.8	2
13980A	8.8	2	7271G	8.8	2	6116G	8.8	2
16266T!	8.8	2	12237T	8.8	2	10807G	8.8	2
11075C	8.8	2	15038G	8.8	2	13477A	8.8	2
6305A	8.8	2	16194C	8.8	2	14410A	8.8	2
8650T	8.8	2	16000A	8.8	2	9644G	8.8	2
13674C	8.8	2	16266G	8.8	2	9067G	8.8	2
1804G	8.8	2	5824A	8.8	2	9109G	8.8	2
11776C	8.8	2	13413G	8.8	2	7388G	8.8	2
3817T	8.8	2	5814C	8.8	2	15055C	8.8	2
12246T	8.8	2	62A	8.8	2	9242G	8.8	2
11497T	8.8	2	6497C	8.8	2	10688A	8.8	2
4017T	8.8	2	6473T	8.8	2	13161C	8.8	2
13191C	8.8	2	10895G	8.8	2	4062C	8.8	2
16157C	8.8	2	551G	8.8	2	8988G	8.8	2
479G	8.8	2	3663G	8.8	2	9116C	8.8	2
7684C	8.8	2	5987T	8.8	2	212C	8.8	2
4086T	8.8	2	13221G	8.8	2	12711G	8.8	2

14890G	8.8	2	14926G	8.8	2	9903C	8.8	2
13958C	8.8	2	13789C	8.8	2	12161C	8.8	2
15839T	8.8	2	340T	8.8	2	8901G	8.8	2
128T	8.8	2	11732C	8.8	2	16189A	8.8	2
3645C	8.8	2	3116T	8.8	2	15652G	8.8	2
15937G	8.8	2	7109T	8.8	2	11491G	8.8	2
14696G	8.8	2	7151T	8.8	2	6641C	8.8	2
10914A	8.8	2	4132A	8.8	2	16172C!	8.8	2
7419A	8.8	2	4736C	8.8	2	15547T	8.8	2
15970C	8.8	2	309d	8.8	2	1342T	8.8	2
12235C	8.8	2	6518T	8.8	2	4023C	8.8	2
14788C	8.8	2	723C	8.8	2	6227C	8.8	2
13104G	8.8	2	14620T	8.8	2	8161T	8.8	2
663G	8.8	2	2246G	8.8	2	14299C	8.8	2
8395T	8.8	2	1978G	8.8	2	9851T	8.8	2
16214A	8.8	2	12297C	8.8	2	5096C	8.8	2
13617C	8.8	2	11674T	8.8	2	8562T	8.8	2
13802T	8.8	2	8433C	8.8	2	15052G	8.8	2
5583T	8.8	2	6146G	8.8	2	10955T	8.8	2
6584T	8.8	2	3654T	8.8	2	4904T	8.8	2
3564G	8.8	2	5984G	8.8	2	8264T	8.8	2
8610C	8.8	2	6938T	8.8	2	9957C	8.8	2
11296T	8.8	2	11350G	8.8	2	4967C	8.8	2
11938T	8.8	2	8137T	8.8	2	4735A	8.8	2
14893G	8.8	2	8684T	8.8	2	13129T	8.8	2
10619T	8.8	2	10142T	8.8	2	4065G	8.8	2
3768G	8.8	2	9852G	8.8	2	15884C	8.8	2
15097C	8.8	2	282C	8.8	2	12669T	8.8	2
10927C	8.8	2	6455T	8.8	2	10086G	8.8	2
4059T	8.8	2	9365T	8.8	2	9278T	8.8	2
10907C	8.8	2	10733T	8.8	2	16082T	8.8	2
1047G	8.8	2	12768G	8.8	2	10097G	8.8	2
8413G	8.8	2	1811G!	8.8	2	8658T	8.8	2
5788C	8.8	2	5165T	8.8	2	9211T	8.8	2
16074G	8.8	2	3696T	8.8	2	3357A	8.8	2
16336A	8.8	2	11582G	8.8	2	14634C	8.8	2
2757G	8.8	2	14530C	8.8	2	5048C	8.8	2
4209C	8.8	2	5177A	8.8	2	5553C	8.8	2
6674C	8.8	2	6260A!	8.8	2	11617C	8.8	2
11329G	8.8	2	15880G	8.8	2	10370C	8.8	2
4843T	8.8	2	16246T	8.8	2	12906T	8.8	2
3861G	8.8	2	942G	8.8	2	16250T	8.8	2
9670G	8.8	2	7118G	8.8	2	453A	8.8	2
7226A	8.8	2	8531G	8.8	2	15080G	8.8	2
6461G	8.8	2	9428C	8.8	2	11368C	8.8	2
960d	8.8	2	8870C	8.8	2	9410G	8.8	2
15383C	8.8	2	6367C	8.8	2	2010C	8.8	2
9100G	8.8	2	16T	8.8	2	14311C	8.8	2
13569C	8.8	2	15791G	8.8	2	8928C	8.8	2
8557C	8.8	2	15650A	8.8	2	16232T	8.8	2
13440T	8.8	2	11878C	8.8	2	8867C	8.8	2
11734G	8.8	2	4158G	8.8	2	178G	8.8	2
15632T	8.8	2	9287A	8.8	2	14384C	8.8	2
12950C	8.8	2	3702G	8.8	2	9512T	8.8	2
12603T	8.8	2	15381T	8.8	2	12025T	8.8	2
11947G	8.8	2	6053T	8.8	2	9713A	8.8	2
4970G	8.8	2	12019T	8.8	2	9650T	8.8	2
9094T	8.8	2	12188C	8.8	2	14911T	8.8	2

676A	8.8	2	494T	8.8	2	1120T	8.8	2
13855T	8.8	2	9941G	8.8	2	4586C	8.8	2
14280G	8.8	2	7129G	8.8	2	9063G	8.8	2
11548G	8.8	2	13926C	8.8	2	7948T	8.8	2
9344T	8.8	2	189C	8.8	2	8108G	8.8	2
11248G	8.8	2	294C	8.8	2	16234T!	8.8	2
1738C	8.8	2	990C	8.8	2	4833G	8.8	2
14791T	8.8	2	12469G	8.8	2	7867T	8.8	2
15229C	8.8	2	16359C	8.8	2	8566G	8.8	2
5910A	8.8	2	8521G	8.8	2	4833G!	8.8	2
6794G	8.8	2	13152G	8.8	2	8748T	8.8	2
11482C	8.8	2	9845C	8.8	2	13383T	8.8	2
92A	8.8	2	954T	8.8	2	5782C	8.8	2
14211T	8.8	2	14356T	8.8	2	8877C	8.8	2
8654C	8.8	2	2045G	8.8	2	191.1A	8.8	2
808T	8.8	2	14315T	8.8	2	7660C	8.8	2
105d	8.8	2	14527G	8.8	2	11506C	8.8	2
6602T	8.8	2	3999C	8.8	2	4394T	8.8	2
8459G	8.8	2	14417G	8.8	2	527T	8.8	2
8393T	8.8	2	1780C	8.8	2	2080C	8.8	2
15874G	8.8	2	13254C	8.8	2	6231T	8.8	2
12880C	8.8	2	1677T	8.8	2	15025T	8.8	2
12909G	8.8	2	15777C	8.8	2	3453T	8.8	2
7694T	8.8	2	644G	8.8	2	13812C	8.8	2
15300C	8.8	2	195A	8.8	2	870T	8.8	2
15852C	8.8	2	11963A	8.8	2	15263T	8.8	2
6167C	8.8	2	9374G	8.8	2	4212G	8.8	2
66A	8.8	2	8886A	8.8	2	1053G	8.8	2
15664T	8.8	2	15896G	8.8	2	13803G	8.8	2
5090C	8.8	2	8110C	8.8	2	13065T	8.8	2
7498A	8.8	2	4958G	8.8	2	5843G	8.8	2
1375T	8.8	2	3756G	8.8	2	16241G!	8.8	2
10188G	8.8	2	7175C	8.8	2	16488T	8.8	2
7533T	8.8	2	3140G	8.8	2	7816T	8.8	2
8140T	8.8	2	12804C	8.8	2	228T	8.8	2
794C	8.8	2	9797C	8.8	2	5075C	8.8	2
226C	8.8	2	12049T	8.8	2	2768G	8.8	2
5375T	8.8	2	16471A	8.8	2	61T	8.8	2
9151G	8.8	2	12375C	8.8	2	14407T	8.8	2
8406T	8.8	2	291d	8.8	2	12189C	8.8	2
5111T	8.8	2	4167T	8.8	2	8668C	8.8	2
14566G	8.8	2	8848C	8.8	2	16178C	8.8	2
13887G	8.8	2	12978G	8.8	2	6917A	8.8	2
2332T	8.8	2	7697A	8.8	2	8925G	8.8	2
15550T	8.8	2	194T!	8.8	2	16225T	8.8	2
5601T	8.8	2	10834T	8.8	2	3592A	8.8	2
745.1T	8.8	2	16150T	8.8	2	3894T	8.8	2
7394G	8.8	2	8014G	8.8	2	553T	8.8	2
13884G	8.8	2	5036G	8.8	2	3546T	8.8	2
200G!	8.8	2	9248T	8.8	2	13149G	8.8	2
8703T	8.8	2	11254C	8.8	2	15644G	8.8	2
4395G	8.8	2	12780G	8.8	2	5655C	8.8	2
12215C	8.8	2	11902A	8.8	2	7353G	8.8	2
3852T	8.8	2	2780T	8.8	2	15805G	8.8	2
10335C	8.8	2	9115G	8.8	2	8116G	8.8	2
9490T	8.8	2	8631G	8.8	2	2885C	8.8	2
13317A	8.8	2	12362T	8.8	2	3349G	8.8	2
11260C	8.8	2	16158G	8.8	2	6285A	8.8	2

15889C	8.8	2	2145A	10	1	16276C	10	1
297G	8.8	2	16080G	10	1	13035T	10	1
280T	8.8	2	7691C	10	1	8245G	10	1
6176C	8.8	2	11029G	10	1	267C	10	1
9042T	8.8	2	9066G	10	1	6446T	10	1
14755G	8.8	2	7309C	10	1	10003C	10	1
11059T	8.8	2	8602C	10	1	10348C	10	1
13819C	8.8	2	5206T	10	1	8740T	10	1
8434T	8.8	2	477C	10	1	4316G	10	1
10427A	8.8	2	1926G	10	1	6515G	10	1
1310T	8.8	2	12858T	10	1	16239G	10	1
4092A	8.8	2	15315T	10	1	14125T	10	1
13984T	8.8	2	6074T	10	1	10754C	10	1
4964T	8.8	2	8803G	10	1	15377G	10	1
2789T	8.8	2	14350T	10	1	13611G	10	1
731G	8.8	2	14182A	10	1	5893T	10	1
5196C	8.8	2	8417A	10	1	12217G	10	1
143A!	8.8	2	4484T	10	1	2581G	10	1
719A	8.8	2	12627G	10	1	1290T	10	1
9018C	8.8	2	12310.1A	10	1	3832A	10	1
264T	8.8	2	15325C	10	1	6638C	10	1
14812T	8.8	2	5387T	10	1	12447G	10	1
7298G	8.8	2	14491T	10	1	1536G	10	1
9072G	8.8	2	11113C	10	1	5896T	10	1
16293G!	8.8	2	11371G	10	1	1618G	10	1
16360T!	8.8	2	1900C	10	1	15592G	10	1
11854C	8.8	2	2320G	10	1	5960T	10	1
14007G	8.8	2	12915A	10	1	13713T	10	1
4012G	8.8	2	4781G	10	1	14501G	10	1
12720G!	8.8	2	453C	10	1	6953G	10	1
11974G	8.8	2	1812T	10	1	8939C	10	1
16390T	8.8	2	4673G	10	1	3613T	10	1
8182T	10	1	15817G	10	1	4512A	10	1
8860G	10	1	10922G	10	1	293C	10	1
15326G	10	1	6237A	10	1	4315G	10	1
8634C	10	1	11144T	10	1	15917T	10	1
750G	10	1	11963C	10	1	10247G	10	1
13095C	10	1	1821G	10	1	9693T	10	1
979T	10	1	9290A	10	1	251A	10	1
3567T	10	1	3084G	10	1	15224T	10	1
13272T	10	1	2222G	10	1	9525A	10	1
9862A	10	1	4171T	10	1	14582G	10	1
11077G	10	1	2098A	10	1	14365T	10	1
14494C	10	1	15742A	10	1	1656G	10	1
2195G	10	1	552A	10	1	6951A	10	1
751G	10	1	11551G	10	1	8380C	10	1
14189G	10	1	14224G	10	1	16179A	10	1
2749G	10	1	9923T	10	1	3624G	10	1
11086G	10	1	8966C	10	1	9276A	10	1
205A	10	1	3411G	10	1	4095T	10	1
3334G	10	1	15088T	10	1	8803T	10	1
1438G	10	1	9621A	10	1	1284C	10	1
6365C	10	1	4763A	10	1	7517G	10	1
8271T	10	1	5309G	10	1	9392T	10	1
9341T	10	1	5780A	10	1	11221G	10	1
8334A	10	1	15304A	10	1	15638T	10	1
10455G	10	1	11890G	10	1	5839T	10	1
11962G	10	1	11515A	10	1	3310T	10	1

9515T	10	1	3381G	10	1	13147T	10	1
7025G	10	1	8888C	10	1	5174T	10	1
5450T	10	1	14872T	10	1	8347G	10	1
14497G	10	1	2259T	10	1	4221A	10	1
6923G	10	1	4745G	10	1	7002T	10	1
8011G	10	1	2701A	10	1	9677T	10	1
14311G	10	1	8381G	10	1	12063T	10	1
15157G	10	1	4231G	10	1	8068T	10	1
7474G	10	1	7903G	10	1	5435T	10	1
15082T	10	1	1008G	10	1	9497C	10	1
8975C	10	1	13762G	10	1	11069G	10	1
13725T	10	1	13575T	10	1	10403G	10	1
8593G	10	1	15713G	10	1	3798T	10	1
3525A	10	1	14863T	10	1	2706G	10	1
8578T	10	1	2713T	10	1	7028T	10	1
13056T	10	1	5568G	10	1	15904T	10	1
16070G	10	1	10217G	10	1	10196T	10	1
4727G	10	1	3906C	10	1	16346C	10	1
9362G	10	1	7610T	10	1	9088C	10	1
9773T	10	1	9689G	10	1	15773A	10	1
11662C	10	1	12834G	10	1	4550C	10	1
5785C	10	1	15715G	10	1	14550C	10	1
10936T	10	1	8699C	10	1	3549T	10	1
288G	10	1	10394T	10	1	11581T	10	1
6218G	10	1	15340G	10	1	9368G	10	1
12975G	10	1	9071T	10	1	9098G	10	1
13869C	10	1	14155T	10	1	4221T	10	1
6869T	10	1	9129T	10	1	10308T	10	1
12351C	10	1	14249A	10	1	1537T	10	1
13323T	10	1	6296T	10	1	14914C	10	1
6296A	10	1	8895A	10	1	3573T	10	1
13959T	10	1	9391T	10	1	8014T	10	1
15409T	10	1	4838C	10	1	14443T	10	1
14871C	10	1	380A	10	1	14161G	10	1
14405G	10	1	85A	10	1	7372C	10	1
8639G	10	1	16328A	10	1	7193C	10	1
8026T	10	1	292C	10	1	12061T	10	1
9527T	10	1	9756G	10	1	13866G	10	1
7472T	10	1	7334C	10	1	7094C	10	1
3984T	10	1	3822T	10	1	16221T!	10	1
9114G	10	1	3333T	10	1	10356T	10	1
7930T	10	1	10562G	10	1	16113C	10	1
10771G	10	1	2239G	10	1	13449T	10	1
15247T	10	1	13635A	10	1	9000G	10	1
8448C	10	1	6323G	10	1	12492T	10	1
961G	10	1	3342T	10	1	4997T	10	1
8898T	10	1	13362T	10	1	1601T	10	1
9521T	10	1	5752.1A	10	1	3892G	10	1
9911T	10	1	11458G	10	1	15682G	10	1
3936T	10	1	13020A	10	1	594T	10	1
14552G	10	1	15058T	10	1	8774G	10	1
3808G	10	1	10704A	10	1	14766T	10	1
6743C	10	1	3387C	10	1	11761T	10	1
4243G	10	1	4709T	10	1	2069C	10	1
14470A	10	1	12674G	10	1	13479T	10	1
14548G	10	1	6971C	10	1	5333C	10	1
9091G	10	1	3509C	10	1	26T	10	1
14602G	10	1	14193G	10	1	15674C	10	1

2355G	10	1	12020T	10	1	9872G	10	1
7249T	10	1	12379T	10	1	6830A	10	1
16305T	10	1	15199T	10	1	13612T	10	1
10728T	10	1	15936T	10	1	14029G	10	1
4106T	10	1	8923G	10	1	12633A	10	1
10493G	10	1	8558T	10	1	12028C	10	1
7837C	10	1	15947G	10	1	15965G	10	1
12295C	10	1	9836C	10	1	13132T	10	1
2179G	10	1	8847T	10	1	4155T	10	1
14392T	10	1	10227C	10	1	15213C	10	1
12474T	10	1	14296G	10	1	16269C	10	1
2351C	10	1	12083G	10	1	3308G	10	1
5205C	10	1	5198G	10	1	8530G	10	1
10775A	10	1	10334T	10	1	469T	10	1
15628G	10	1	8734A	10	1	8974T	10	1
3360G	10	1	3721G	10	1	4917G!	10	1
5586T	10	1	15916C	10	1	14274G	10	1
6557T	10	1	2969G	10	1	15607G!	10	1
7547C	10	1	15913T	10	1	7258C	10	1
10825G	10	1	6554T	10	1	7001G	10	1
13948T	10	1	6464A	10	1	91T	10	1
14632T	10	1	4084A	10	1	8412C	10	1
4026G	10	1	13581C	10	1	13791T	10	1
8765T	10	1	9219G	10	1	10376G	10	1
11977T	10	1	11503T	10	1	512G	10	1
12245C	10	1	8940T	10	1	2850C	10	1
6683T	10	1	6887T	10	1	7022C	10	1
11122A	10	1	5024T	10	1	4808T	10	1
14062G	10	1	12453C	10	1	7268C	10	1
14185G	10	1	15113G	10	1	4931T	10	1
11251G	10	1	7963G	10	1	3350C	10	1
15452A	10	1	8633G	10	1	8256C	10	1
295T	10	1	5297T	10	1	4464A	10	1
5463T	10	1	15894A	10	1	11242G	10	1
6911C	10	1	7476T	10	1	59C	10	1
10C	10	1	310.1T	10	1	7150C	10	1
6345C	10	1	7501C	10	1	5527G	10	1
7747T	10	1	6635C	10	1	8711G	10	1
10942G	10	1	11857T	10	1	8504C	10	1
1733T	10	1	12570G	10	1	11533T	10	1
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15490T	10	1	8386T	10	1	10559G	10	1
4013T	10	1	11797G	10	1	634C	10	1
9324G	10	1	14061T	10	1	13692T	10	1
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6045A	10	1	8078A	10	1	3820T	10	1
5501G	10	1	11416T	10	1	12223G	10	1
203C	10	1	8958T	10	1	9224C	10	1
266C	10	1	5633T	10	1	321C	10	1
10601A	10	1	6893T	10	1	8934T	10	1
9635C	10	1	7302C	10	1	1871G	10	1
7184G	10	1	15014C	10	1	1530G	10	1
15725T	10	1	6491T	10	1	9843G	10	1
11227T	10	1	9016G	10	1	10822T	10	1
7245G	10	1	6962T	10	1	8455T	10	1
6915A	10	1	10389C	10	1	13973T	10	1
16370A	10	1	7211A	10	1	6998T	10	1
16261A	10	1	15453C	10	1	5817T	10	1



5187T	10	1	548T	10	1	7740G	10	1
7873T	10	1	6098G	10	1	8338G	10	1
12363T	10	1	5985A	10	1	16289T	10	1
7679C	10	1	13748G	10	1	70A	10	1
6445T	10	1	15452T	10	1	11203T	10	1
41T!	10	1	53A	10	1	13416G	10	1
8864C	10	1	54C	10	1	3909T	10	1
10682T	10	1	13044T	10	1	7346G	10	1
9139A	10	1	10976T	10	1	13908T	10	1
6489A	10	1	16232A	10	1	14449G	10	1
15028A	10	1	5049T	10	1	8525G	10	1
7984A	10	1	4705C	10	1	6492T	10	1
8854A	10	1	14103A	10	1	16268T	10	1
751T	10	1	10235C	10	1	15292T	10	1
5322C	10	1	12633T!	10	1	73C	10	1
1766C	10	1	1709T	10	1	7052G	10	1
9234G	10	1	10045C	10	1	9822A	10	1
8041G	10	1	5628C	10	1	11632T	10	1
9422C	10	1	15402T	10	1	3960T	10	1
11812G!	10	1	5587C	10	1	7927T	10	1
8271G	10	1	15024A	10	1	9812T	10	1
10446G	10	1	15496G	10	1	9069G	10	1
11062T	10	1	2389T	10	1	15632A	10	1
1829G	10	1	3621C	10	1	15983C	10	1
13956G	10	1	1824C	10	1	193G	10	1
15509G	10	1	16092A	10	1	14751T	10	1
8594C	10	1	747G	10	1	9968T	10	1
8987C	10	1	6156T	10	1	13547T	10	1
11293G	10	1	2281G	10	1	2378T	10	1
15385T	10	1	13782A	10	1	6482T	10	1
597.1T	10	1	9612C	10	1	16217C!	10	1
14990T	10	1	275A	10	1	6302G	10	1
11409T	10	1	11323T	10	1	15535T	10	1
12285C	10	1	10320A	10	1	16483A	10	1
14058T	10	1	12621T	10	1	12729G	10	1
9051G	10	1	5076T	10	1	12890T	10	1
2282T	10	1	11065G!	10	1	9097G	10	1
14064T	10	1	16265G!	10	1	4226C	10	1
6254G	10	1	8337C	10	1	209C	10	1
3384G	10	1	317A	10	1	11968G	10	1
7759C	10	1	7561C	10	1	8641G	10	1
5510G	10	1	6653T	10	1	15521A	10	1
13782T	10	1	8575T	10	1	7262G	10	1
8646T	10	1	10097C	10	1	14757C	10	1
243G	10	1	356.1C	10	1	13661G	10	1
12462A	10	1	12239T	10	1	4123G	10	1
4205C	10	1	14022G	10	1	8875C	10	1
14041T	10	1	16247G	10	1	14049T	10	1
6485G	10	1	13479G	10	1	13833G	10	1
154C	10	1	10931C	10	1	114G	10	1
456.1T	10	1	14540C	10	1	1002T	10	1
1541C	10	1	13943T	10	1	11821G	10	1
10736T	10	1	16182T	10	1	470G	10	1
2322A	10	1	7534T	10	1	4259T	10	1
8724G	10	1	9734G	10	1	5270T	10	1
11422T	10	1	1473T	10	1	16361A	10	1
11308T	10	1	3423A	10	1	4371C	10	1
14227T	10	1	6581G	10	1	16422C	10	1

16519A	10	1	7542G	10	1	1309G	10	1
4191G	10	1	15758G!	10	1	2763C	10	1
16467T	10	1	481T	10	1	5503C	10	1
8146G	10	1	4161T	10	1	7046G	10	1
16323C	10	1	131C!	10	1	8400C	10	1
202G	10	1	12451G	10	1	8464T	10	1
13599T	10	1	10103G	10	1	8743A	10	1
14004T	10	1	7170T	10	1	6077T	10	1
3648T	10	1	14028G	10	1	10118C	10	1
9338T	10	1	4260T	10	1	5969T	10	1
9101G	10	1	9759T	10	1	8859T	10	1
13942G	10	1	11710T	10	1	16176T!	10	1
8379G	10	1	12483T	10	1	1673C	10	1
8855T	10	1	4200G	10	1	4314C	10	1
9701C	10	1	8906G	10	1	6740G	10	1
15512C	10	1	9881C	10	1	8158T	10	1
12135T	10	1	2397T	10	1	8664G	10	1
5418C	10	1	4711T	10	1	13810A	10	1
5084G	10	1	8279C	10	1	15811T	10	1
9212T	10	1	10610T	10	1	12756A	10	1
16155G	10	1	12510T	10	1	15521C	10	1
6122T	10	1	56T	10	1	16241T	10	1
13911G	10	1	4002C	10	1	14338T	10	1
14248T	10	1	7022G	10	1	15748C	10	1
1119C	10	1	11321G	10	1	15937T	10	1
3497T	10	1	16304G	10	1	259G	10	1
8844T	10	1	329A	10	1	517G	10	1
6416G	10	1	6770G	10	1	9587G	10	1
7319C	10	1	634A	10	1	14512C	10	1
14452G	10	1	7007T	10	1	13468T	10	1
5826C	10	1	10987G	10	1	11288T	10	1
7909T	10	1	12151G	10	1	591A	10	1
8167A	10	1	12459G	10	1	10088T	10	1
3571T	10	1	13885A	10	1	16337T	10	1
1716C	10	1	6764A	10	1	12831T	10	1
13629G	10	1	11047A	10	1	3172A	10	1
14209G	10	1	11735T	10	1	13452A	10	1
8823C	10	1	9142A	10	1	285T	10	1
4612C	10	1	9869G	10	1	14070G	10	1
5127G	10	1	13773G	10	1	15954C	10	1
6332G	10	1	299d	10	1	2218T	10	1
8291G	10	1	7268G	10	1	3158.1T	10	1
16523G	10	1	7490G	10	1	8766T	10	1
15235G	10	1	8805G	10	1	6041T	10	1
6960T	10	1	9174C	10	1	7253G	10	1
10523G	10	1	10631A	10	1	10885C	10	1
9189T	10	1	13236G	10	1	11566G	10	1
14158T	10	1	14194T	10	1	4224T	10	1
15046G	10	1	15307T	10	1	10972G	10	1
8059T	10	1	6290T	10	1	10326A	10	1
16243A	10	1	7280T	10	1	14278C	10	1
8829T	10	1	13539G	10	1	7792T	10	1
15851G	10	1	7981T	10	1	14574T	10	1
11146T	10	1	10631T	10	1	1187C	10	1
11207T	10	1	13768A	10	1	12582G	10	1
4895G	10	1	15334T	10	1	16428A	10	1
15850C	10	1	237G	10	1	12331G	10	1
8894T	10	1	2248C	10	1	10544T	10	1

13002A	10	1	13017G	10	1	9614G	10	1
4924C	10	1	6920A	10	1	5790A	10	1
10858C	10	1	10262G	10	1	14935C	10	1
12491T	10	1	14259A	10	1	8676T	10	1
3192T	10	1	16169A	10	1	9767T	10	1
12103A	10	1	3535A	10	1	8938G	10	1
14003T	10	1	3348G	10	1	7277G	10	1
3198G	10	1	14179G	10	1	7894G	10	1
4745T	10	1	3969T	10	1	6045T	10	1
252C	10	1	4172A	10	1	13734C	10	1
9293T	10	1	1472A	10	1	15907G	10	1
14198A	10	1	12376G	10	1	16129C	10	1
15903G	10	1	12727C	10	1	108G	10	1
8933T	10	1	10336C	10	1	10127G	10	1
12308G!	10	1	14562T	10	1	988A	10	1
13285G	10	1	9896G	10	1	3229.1A	10	1
455d	10	1	10784G	10	1	2526T	10	1
14684T	10	1	12022T	10	1	9664G	10	1
13351T	10	1	9891C	10	1	15891T	10	1
9469T	10	1	8282T	10	1	5686T	10	1
10768G	10	1	11539T	10	1	394T	10	1
7960C	10	1	9335A	10	1	3170A	10	1
10709C	10	1	15790T	10	1	14139G	10	1
3750T	10	1	11268T	10	1	2294G	10	1
7978T	10	1	15634G	10	1	10506G	10	1
11107T	10	1	4021G	10	1	6452T	10	1
14577G	10	1	12097T	10	1	14921A	10	1
7768G	10	1	13928A	10	1	2766A	10	1
7028T!	10	1	5554A	10	1	12843C	10	1
7385G	10	1	11272G	10	1	4188G	10	1
1341T	10	1	14215C	10	1	4640A	10	1
8428A	10	1	16079T	10	1	3546A	10	1
10301G	10	1	9031T	10	1	8778T	10	1
15533G	10	1	8407A	10	1	2707G	10	1
55A	10	1	9779T	10	1	9770C	10	1
516T	10	1	794A	10	1	8490C	10	1
6341T	10	1	1692T	10	1	15327T	10	1
5437T	10	1	2672G	10	1	6047G	10	1
742C	10	1	11929C	10	1	11332T	10	1
2225A	10	1	7735G	10	1	15693C	10	1
15631G	10	1	16219G!	10	1	8818T	10	1
7085C	10	1	14179G!	10	1	12937G	10	1
3507A	10	1	7700T	10	1	15544A	10	1
3498T	10	1	9571T	10	1	745G	10	1
1721T	10	1	12535T	10	1	296T	10	1
16270T!	10	1	12842C	10	1	13158G	10	1
896G	10	1	15892C	10	1	16356C!	10	1
1834C	10	1	12530G	10	1	8496C	10	1
5452T	10	1	437T	10	1	6047G!	10	1
3212T	10	1	793T	10	1	2792G	10	1
16398A	10	1	3688C	10	1	6665T	10	1
12678C	10	1	4965G	10	1	7705C	10	1
14767C	10	1	11013T	10	1	3672G	10	1
11725G	10	1	16206C	10	1	8642G	10	1
13630G	10	1	14883T	10	1	5752d	10	1
13420T	10	1	5186T	10	1	9989C	10	1
4616T	10	1	12106T	10	1	7265G	10	1
517T	10	1	15049T	10	1	11965T	10	1

13528G	10	1	7927G	10	1	16491C	10	1
13565T	10	1	15850G	10	1	16494T	10	1
15373G	10	1	14605T	10	1	2628C	10	1
9070G	10	1	15625A	10	1	382T	10	1
14866T	10	1	8952C	10	1	1900G	10	1
10676T	10	1	12134C	10	1	8519A	10	1
2405.1C	10	1	15031T	10	1	5074C	10	1
5319T	10	1	15544T	10	1	12961G	10	1
5567C	10	1	15946T	10	1	8742G	10	1
10692T	10	1	9371T	10	1	6278C	10	1
6386T	10	1	12738G	10	1	9190T	10	1
12615G	10	1	6845T	10	1	12073T	10	1
3741T	10	1	10154G	10	1	574C	10	1
5360T	10	1	368G	10	1	12408A	10	1
270G	10	1	9093G	10	1	6506T	10	1
5486T	10	1	7082T	10	1	7804G	10	1
4502C	10	1	10698T	10	1	3534T	10	1
5265G	10	1	9006G	10	1	953C	10	1
12094T	10	1	6890G	10	1	3783A	10	1
14533T	10	1	1819C	10	1	16201T	10	1
8574T	10	1	10478T	10	1	210G!	10	1
14245T	10	1	14142G	10	1	3672T	10	1
9480C	10	1	7930G	10	1	5981C	10	1
5240G	10	1	15325G	10	1	2639T	10	1
12135A	10	1	11348T	10	1	8836G	10	1
4053G	10	1	512C	10	1	16176G	10	1
9777A	10	1	13293T	10	1	1703T	10	1
9338G	10	1	11549T	10	1	3921A	10	1
14167T	10	1	324T	10	1	4960T	10	1
6546T	10	1	5130C	10	1	8472T	10	1
10550G	10	1	2217T	10	1	12822G	10	1
497T	10	1	14037G	10	1	9335T	10	1
6060G	10	1	11869A	10	1	11362G	10	1
8276.1C	10	1	11374G	10	1	1703T!	10	1
14388G	10	1	560T	10	1	8084G	10	1
8842C	10	1	9852T	10	1	8309T	10	1
7729G	10	1	7031T	10	1	8763C	10	1
9800C	10	1	12705T	10	1	8261G	10	1
7278C	10	1	13780G	10	1	7010T	10	1
4748T	10	1	669C	10	1	8469C	10	1
7918T	10	1	2702A	10	1	12092T	10	1
13117G	10	1	5315G	10	1	1719A!	10	1
7559G	10	1	16147G	10	1	5507A	10	1
10697T	10	1	2702A!	10	1	11626C	10	1
8522T	10	1	1711T	10	1	6974G	10	1
11840T	10	1	7750T	10	1	7864T	10	1
4295G	10	1	4721G	10	1	119C	10	1
8098G	10	1	250C	10	1	14981C	10	1
8856C	10	1	4529T	10	1	513C	10	1
10029G	10	1	8616T	10	1	12923T	10	1
280G	10	1	3990T	10	1	192C	10	1
9448G	10	1	9966A!	10	1	11947G!	10	1
6975C	10	1	13488C	10	1	15775G	10	1
5264T	10	1	16391A!	10	1	9275G	10	1
11071T	10	1	7796G	10	1	139C	10	1
12017G	10	1	5922T	10	1	16177G	10	1
1926T	10	1	2835A	10	1	60.1TT	10	1
4640T	10	1	2849A	10	1	64d	10	1

65d	10	1	3330T	10	1	5514G	10	1
66C	10	1	9301T	10	1	9126C	10	1
8002T	10	1	12166C	10	1	15436T	10	1
16211T	10	1	16331G	10	1	449C	10	1
14097T	10	1	6308T	10	1	9524G	10	1
571T	10	1	7112T	10	1	9716A	10	1
8653G	10	1	2638C	10	1	13752C	10	1
9815T	10	1	14275T	10	1	2857C	10	1
11128G	10	1	7724T	10	1	8962G	10	1
15945T	10	1	3307.1A	10	1	9711T	10	1
75T	10	1	15386T	10	1	13140G	10	1
6710G	10	1	8947T	10	1	15379T	10	1
16466G	10	1	5494G	10	1	6950T	10	1
5135T	10	1	10199T	10	1	7228G	10	1
8483G	10	1	6488C	10	1	8340A	10	1
14485T	10	1	16178G	10	1	11536T	10	1
2760G	10	1	2071C	10	1	8628T	10	1
7885C	10	1	6491A	10	1	16160G	10	1
16257A	10	1	7124G	10	1	13461C	10	1
15095G	10	1	16239A	10	1	15341C	10	1
4688A	10	1	15074C	10	1	10637T	10	1
5553G	10	1	9473C	10	1	12777G	10	1
13857G	10	1	8471T	10	1	7468T	10	1
3729G	10	1	487G	10	1	10094T	10	1
13742T	10	1	2762A	10	1	16227C	10	1
10530C	10	1	16175T	10	1	9140T	10	1
11968T	10	1	3840G	10	1	509T	10	1
9821G	10	1	10343T	10	1	15885T	10	1
10607T	10	1	13443C	10	1	16303A	10	1
13183G	10	1	15847T	10	1	150G	10	1
14996A	10	1	93.1T	10	1	271G	10	1
16187d	10	1	97C	10	1	8506C	10	1
7933G	10	1	10344G	10	1	10786C	10	1
15460T	10	1	16097C	10	1	4181G	10	1
6941C	10	1	16098G	10	1	9866T	10	1
2856T	10	1	9668T	10	1	3169T	10	1
3543T	10	1	16466C	10	1	13770A	10	1
3873G	10	1	3516T	10	1	6371T	10	1
6245G	10	1	6935T	10	1	15654C	10	1
8130T	10	1	9518T	10	1	256T	10	1
9459T	10	1	8552C	10	1	225A	10	1
16291A	10	1	16083T	10	1	8913G	10	1
11581A	10	1	654C	10	1	6113G	10	1
10908C	10	1	3687T	10	1	16213A!	10	1
14431C	10	1	13287T	10	1	8422G	10	1
261T	10	1	4257G	10	1	16254C	10	1
5234T	10	1	6707C	10	1	2120A	10	1
9503G	10	1	9754G	10	1	15469G	10	1
9596G	10	1	16039A	10	1	8814T	10	1
11728T	10	1	97T	10	1	4722G	10	1
14357G	10	1	6101T	10	1	7400A	10	1
5704T	10	1	14067T	10	1	14818C	10	1
337d	10	1	3408T	10	1	10532G	10	1
10583G	10	1	8409T	10	1	13251T	10	1
292.1AT	10	1	298A	10	1	4577T	10	1
9159T	10	1	11557G	10	1	7570G	10	1
1736G	10	1	14929T	10	1	5427G	10	1
8794T	10	1	16292A	10	1	9830T	10	1

8425G	10	1	5372G	10	1	5813G	10	1
5186G	10	1	14272T	10	1	5930C	10	1
6626C	10	1	14584C	10	1	9965C	10	1
8463G	10	1	3498G	10	1	13080T	10	1
15310C	10	1	10899G	10	1	13755T	10	1
12084T	10	1	15208G	10	1	10400T	10	1
3948G	10	1	6587T	10	1	12403T	10	1
13327G	10	1	5774A	10	1	16249C!	10	1
15358G	10	1	11024T	10	1	375G	10	1
15793T	10	1	16325d	10	1	1820G	10	1
1656d	10	1	3675G	10	1	13542C	10	1
9840A	10	1	8289.1CCCCCTC	10	1	3906A	10	1
13035A	10	1	TACCCCTCTA			9629G	10	1
9540C	10	1	12738C	10	1	12873C	10	1
10873C	10	1	9327G	10	1	9740T	10	1
14461C	10	1	14571A	10	1	8607T	10	1
14851G	10	1	90A	10	1	10694G	10	1
4088T	10	1	4219A	10	1	14515C	10	1
2357T	10	1	4844G	10	1	15770T	10	1
10184T	10	1	11318C	10	1	15247G	10	1
573T	10	1	1737G	10	1	4385T	10	1
3450T	10	1	15076G	10	1	7433T	10	1
15311G	10	1	5102G	10	1	14974T	10	1
15824G	10	1	3277A	10	1	15691G	10	1
1710C	10	1	7370T	10	1	4697T	10	1
3385G	10	1	2000T	10	1	732G	10	1
16124C!	10	1	10816G	10	1	12715G	10	1
3441G	10	1	16265T	10	1	5461T	10	1
5211T	10	1	10286G	10	1	12012T	10	1
13790G	10	1	12248G	10	1	11083G	10	1
9079G	10	1	13197T	10	1	8502G	10	1
3420T	10	1	5584G	10	1	8396G	10	1
4350T	10	1	398C	10	1	16274A!	10	1
5194T	10	1	16041G	10	1	7472G	10	1
7819A	10	1	12591T	10	1	15700T	10	1
8527G	10	1	12173C	10	1	526A	10	1
8932T	10	1	13800A	10	1	7702A	10	1
10070T	10	1	13687T	10	1	11041A	10	1
272G	10	1	14818G	10	1	12657C	10	1
7235A	10	1	15388C	10	1	6035G	10	1
8799G	10	1	6620G	10	1	1453G	10	1
374.1A	10	1	8649G	10	1	2831T	10	1
5342T	10	1	9467C	10	1	3630T	10	1
959T	10	1	13992T	10	1	16169.1C	10	1
4643A	10	1	9007T	10	1	8632C	10	1
5181G	10	1	13862G	10	1	6128T	10	1
10604C	10	1	6401G	10	1	8556C	10	1
11770C	10	1	8311C	10	1	10845T	10	1
498.1C	10	1	8817G	10	1	5783A	10	1
678C	10	1	368.1AGAA	10	1	10727T	10	1
3582T	10	1	650C	10	1	9010A	10	1
13886C	10	1	4388G	10	1	12031A	10	1
921C	10	1	8781A	10	1	14440G	10	1
7648T	10	1	12175C	10	1	13820C	10	1
3579G	10	1	14862T	10	1	12813T	10	1
10837T	10	1	16256A	10	1	13836G	10	1
8014C	10	1	606G	10	1	511T	10	1
3957G	10	1	3879G	10	1	11413G	10	1

9863T	10	1	6228T	10	1	3576T	10	1
12498T	10	1	10232G	10	1	4884G	10	1
4099T	10	1	3995G	10	1	10891G	10	1
15487G	10	1	14115T	10	1	5846T	10	1
1808G	10	1	15912T	10	1	9263G	10	1
3987G	10	1	958T	10	1	12624C	10	1
9186T	10	1	14314G	10	1	10304C	10	1
10748G	10	1	5324T	10	1	47A	10	1
12103T	10	1	4850T	10	1	16259.1A	10	1
16260A	10	1	11665T	10	1	15145T	10	1
488G	10	1	12091C	10	1	1788T	10	1
8289.1CCCCCTC TA	10	1	14755T	10	1	3392C	10	1
14706G	10	1	12906A	10	1	14433T	10	1
15259T	10	1	11815A	10	1	96T	10	1
10160T	10	1	3606G	10	1	473T	10	1
13303T	10	1	13204A	10	1	15523T	10	1
10556T	10	1	146A	10	1	7100G	10	1
2074d	10	1	5775C	10	1	7307G	10	1
16000T	10	1	630T	10	1	595.1C	10	1
4734G	10	1	6681C	10	1	16327T!	10	1
7049G	10	1	16392C	10	1	1719.1G	10	1
15848G	10	1	3912G	10	1	16518T	10	1
12897G	10	1	10897T	10	1	1670T	10	1
13089C	10	1	11932T	10	1	10682G	10	1
9061T	10	1	15338T	10	1	13968A	10	1
3921T	10	1	11527T	10	1	6338G	10	1
3399G	10	1	7196A	10	1	333C	10	1
16144A	10	1	15487T	10	1	2905G	10	1
8547C	10	1	8453G	10	1	13635G	10	1
7421G	10	1	16470A	10	1	15261A	10	1
10547T	10	1	4670T	10	1	740A	10	1
8784T	10	1	13993T	10	1	12930G	10	1
14066T	10	1	5100T	10	1	11078G	10	1
14410C	10	1	3552A	10	1	10208C	10	1
4851T	10	1	14318C	10	1	8931G	10	1
13368A!	10	1	290d	10	1	11782T	10	1
472G	10	1	11147C	10	1	15475G	10	1
1888A!	10	1	4242T	10	1	3520G	10	1
461T	10	1	9557T	10	1	11719A!	10	1
3486T	10	1	14524G	10	1	4841A	10	1
15094T	10	1	5157T	10	1	10653A	10	1
16256G	10	1	4381G	10	1	255A	10	1
9824C	10	1	4911G	10	1	814G	10	1
11722C	10	1	9130T	10	1	4712T	10	1
15886T	10	1	258T	10	1	14052T	10	1
6018A	10	1	7091G	10	1	7142C	10	1
13110T	10	1	12411T	10	1	15671G	10	1
7784G	10	1	11794C	10	1	11872T	10	1
13788T	10	1	7022A	10	1	3522T	10	1
15422G	10	1	7343G	10	1	10951A	10	1
8176C	10	1	928G	10	1	6842C	10	1
4071T	10	1	12378T	10	1	7609C	10	1
12405T	10	1	3395G	10	1	13626T	10	1
5351G	10	1	7331T	10	1	9020T	10	1
11659T	10	1	14324C	10	1	4102A	10	1
10159T	10	1	7999C	10	1	723T	10	1
6125G	10	1	2232.2A	10	1	6340T	10	1
			8508G	10	1	9080G	10	1

15178G	10	1	6032A	10	1	16086C!	10	1
10742C	10	1	10130G	10	1	16429T	10	1
4140T	10	1	11008T	10	1	9663A	10	1
12549T	10	1	16343T	10	1	3651G	10	1
15071C	10	1	11810T	10	1	6275G	10	1
3172.1C	10	1	5582C	10	1	15481A	10	1
7250G	10	1	11629T	10	1	13246C	10	1
3083C	10	1	13659C	10	1	14122G	10	1
14337T	10	1	16147A	10	1	2135G	10	1
10529G	10	1	930C	10	1	13754T	10	1
326G	10	1	12973T	10	1	464G	10	1
6531T	10	1	862G	10	1	4230T	10	1
13074G	10	1	10324C	10	1	4050T	10	1
14340T	10	1	15802G	10	1	13452T	10	1
13890T	10	1	12465T	10	1	7681T	10	1
14790G	10	1	240G	10	1	208C	10	1
13928T	10	1	390T	10	1	92A!	10	1
5192G	10	1	572T	10	1	7993C	10	1
3523G	10	1	9302T	10	1	4707T	10	1
1289A	10	1	11023G	10	1	14404T	10	1
4170T	10	1	965d	10	1	2359T	10	1
12030G	10	1	1763G	10	1	10924T	10	1
15010G	10	1	8509T	10	1	1407A	10	1
15463G	10	1	8360G	10	1	4913C	10	1
15651T	10	1	7313T	10	1	13047G	10	1
318C!	10	1	16068C	10	1	9037G	10	1
11359G	10	1	7040C	10	1	10214T	10	1
1331G	10	1	375T	10	1	10978C	10	1
1331G!	10	1	12398T	10	1	4787G	10	1
8749C	10	1	16330C	10	1	12675T	10	1
3897T	10	1	16545C	10	1	15516T	10	1
5336T	10	1	13113G	10	1	11554T	10	1
15884T	10	1	8776T	10	1	744G	10	1
9604G	10	1	13144T	10	1	5456T	10	1
15860G	10	1	16290A	10	1	12267G	10	1
1299G	10	1	11521G	10	1	12268C	10	1
6167G	10	1	12190G	10	1	15070T	10	1
12178T	10	1	13932T	10	1	4335T	10	1
12040G	10	1	9201T	10	1	8454G	10	1
2226C	10	1	537T	10	1	12684A	10	1
7600A	10	1	11554G	10	1	14484C	10	1
8063C	10	1	15451T	10	1	12876T	10	1
16194G	10	1	16077T	10	1	1524G	10	1
6737G	10	1	8857A	10	1	3975T	10	1
4505T	10	1	656C	10	1	8973G	10	1
7503d	10	1	2315G	10	1	11014T	10	1
4680A	10	1	4342G	10	1	868T	10	1
8861T	10	1	14137T	10	1	11023T	10	1
6086C	10	1	14370G	10	1	15258G	10	1
9599T	10	1	14674C	10	1	15676T	10	1
10411G	10	1	4198T	10	1	6299G	10	1
5045G	10	1	12370T	10	1	9269T	10	1
8405G	10	1	14870G	10	1	15754T	10	1
9182A	10	1	6281G	10	1	8768T	10	1
11665A	10	1	9590G	10	1	14130T	10	1
15468T	10	1	7145T	10	1	14260G	10	1
9012G	10	1	10691T	10	1	15625T	10	1
15924G!	10	1	15363G	10	1	5423G	10	1



13731G	10	1	10514G	10	1	57G	10	1
5124A	10	1	6605G	10	1	15719C	10	1
15796C	10	1	11542T	10	1	10816T	10	1
4079G	10	1	4688G	10	1	13059T	10	1
6563T	10	1	8297T	10	1	6314T	10	1
10969T	10	1	1462T	10	1	14047G	10	1
15865G	10	1	6020T	10	1	8674G	10	1
10361C	10	1	16275G	10	1	16142T	10	1
16095T	10	1	15349T	10	1	10874T	10	1
7406T	10	1	4525C	10	1	10644A	10	1
4020T	10	1	614G	10	1	14027T	10	1
14743G	10	1	173C	10	1	16325C!	10	1
502T	10	1	3540C	10	1	56G	10	1
5432G	10	1	8279.1T	10	1	245C	10	1
10670T	10	1	1409d	10	1	9419T	10	1
5118T	10	1	13407G	10	1	3402G	10	1
8056G	10	1	3209G	10	1	1943G	10	1
4234T	10	1	8345T	10	1	15877A	10	1
11224G	10	1	15760T	10	1	15868T	10	1
15328G	10	1	6728G	10	1	5325T	10	1
10565T	10	1	15910T	10	1	3206T	10	1
6320C	10	1	2735A	10	1	15757G	10	1
9036T	10	1	15510G	10	1	5459T	10	1
12410G	10	1	15520G	10	1	5466G	10	1
13371T	10	1	4763T	10	1	15448T	10	1
4101C	10	1	9935C	10	1	10601C	10	1
4102T	10	1	11431T	10	1	469G	10	1
4135C	10	1	292d	10	1	10181T	10	1
15352G	10	1	293d	10	1	8450C	10	1
3523T	10	1	294d	10	1	14091G	10	1
59d	10	1	4902C	10	1	14815T	10	1
60d	10	1	5489A	10	1	13720T	10	1
65.1T	10	1	13806T	10	1	431T	10	1
66T	10	1	7664A!	10	1	6689T	10	1
15938T	10	1	736T	10	1	14560C	10	1
8704G	10	1	4392T	10	1	6578G	10	1
9383T	10	1	5499T	10	1	15370T	10	1
15589A	10	1	6050C	10	1	9785T	10	1
9297T	10	1	1872C	10	1	1382C	10	1
4508T	10	1	15820T	10	1	9824A	10	1
2880G	10	1	2263A	10	1	15524G	10	1
7229T	10	1	3399T	10	1	10104T	10	1
8597C	10	1	3533T	10	1	14287C	10	1
10310C	10	1	11708G	10	1	6005T	10	1
6083T	10	1	3442T	10	1	9296T	10	1
15241G	10	1	3669G	10	1	14867T	10	1
10268T	10	1	7661T	10	1	13707A	10	1
6575G	10	1	8437T	10	1	15331A	10	1
12850G	10	1	14341T	10	1	13182C	10	1
8080A	10	1	7793T	10	1	15832T	10	1
8616A	10	1	7064C	10	1	13239T	10	1
6884T	10	1	647G	10	1	2766T	10	1
8251A!	10	1	1352A	10	1	856G	10	1
8554G	10	1	2695A	10	1	14692G	10	1
3780T	10	1	7939T	10	1	9431T	10	1
11263T	10	1	5178A	10	1	4233C	10	1
3780T!	10	1	8414T	10	1	15391A	10	1
15647T	10	1	2092T	10	1	6503C	10	1

7757A	10	1	1107C	10	1	4104G	10	1
12085T	10	1	752T	10	1	9221G	10	1
9536T	10	1	68A	10	1	7274T	10	1
9495C	10	1	3496T	10	1	12693G	10	1
14207A	10	1	13278G	10	1	5285G	10	1
7493T	10	1	16102C	10	1	15421G	10	1
8910A	10	1	8071G	10	1	13615G	10	1
1106T	10	1	3528T	10	1	15735T	10	1
14857C	10	1	8479G	10	1	11692T	10	1
13716G	10	1	13356C	10	1	6663G	10	1
1935G	10	1	681C	10	1	8604C	10	1
8683G	10	1	15724G	10	1	6311T	10	1
5021C	10	1	3759G	10	1	10954T	10	1
4538T	10	1	12666C	10	1	10903T	10	1
11255C	10	1	15724G!	10	1	7858T	10	1
4343G	10	1	15769C	10	1	9854C	10	1
15518T	10	1	16292G	10	1	14965G	10	1
9004T	10	1	9992T	10	1	12976T	10	1
13512G	10	1	13954T	10	1	3495A	10	1
298T	10	1	4200T	10	1	8541A	10	1
12966A	10	1	16190T	10	1	14599G	10	1
504C	10	1	7669T	10	1	2746C	10	1
11092G	10	1	8580T	10	1	14464G	10	1
7181T	10	1	15737A	10	1	12903C	10	1
8946G	10	1	6701G	10	1	5366A	10	1
9458T	10	1	7879G	10	1	3573A	10	1
12990G	10	1	4679C	10	1	8553T	10	1
71d	10	1	5441T	10	1	16229C	10	1
16301T!	10	1	11344G	10	1	15939T	10	1
16234G	10	1	16207T	10	1	11767T	10	1
1810G	10	1	10813T	10	1	8721G	10	1
7785C	10	1	4029A	10	1	13068G	10	1
9046G	10	1	8974G	10	1	14894C	10	1
3558G	10	1	12661T	10	1	593A	10	1
15295T	10	1	13497G	10	1	13125T	10	1
7980C	10	1	244G	10	1	6959T	10	1
6852A	10	1	9855G	10	1	12480T	10	1
11218T	10	1	16293T	10	1	6040C	10	1
7445C	10	1	709A!	10	1	7624A	10	1
13086T	10	1	1413C	10	1	1706T	10	1
9578G	10	1	547G	10	1	2358G	10	1
13573A	10	1	4949G	10	1	4370C	10	1
8273T	10	1	10783C	10	1	5331A	10	1
15529A	10	1	11137C	10	1	8080T	10	1
2330C	10	1	391C	10	1	12948G	10	1
2178G	10	1	5128G	10	1	14059G	10	1
9355G	10	1	10265C	10	1	418T	10	1
8762C	10	1	2220T	10	1	10828C	10	1
12651C	10	1	4206G	10	1	13924T	10	1
1148G	10	1	3594T	10	1	9350G	10	1
12088T	10	1	185C	10	1	15944.1T	10	1
1222G	10	1	770T	10	1	4185T	10	1
3492G	10	1	1461G	10	1	12011C	10	1
16042A	10	1	5267C	10	1	680C	10	1
12750T	10	1	6002G	10	1	3200A	10	1
16355A	10	1	9332T	10	1	15849T	10	1
6704G	10	1	11743T	10	1	93G!	10	1
15901G	10	1	14533A	10	1	13184C	10	1

15574T	10	1	9272T	10	1	2245C	10	1
8733C	10	1	1291C	10	1	8191G	10	1
3254A	10	1	8619T	10	1	14106C	10	1
14845T	10	1	14393G	10	1	15099C	10	1
15703G	10	1	11335T	10	1	5608T	10	1
5069T	10	1	10793T	10	1	7568C	10	1
6014C	10	1	11654G	10	1	16168T!	10	1
9971T	10	1	7744C	10	1	5060T	10	1
825A	10	1	5899.1C!	10	1	14001G	10	1
8655T	10	1	7070T	10	1	14142T	10	1
15301A!	10	1	7160T	10	1	16259A	10	1
3423C	10	1	7301G	10	1	185A!	10	1
851G	10	1	6723A	10	1	5711G	10	1
8582T	10	1	7741C	10	1	4598C	10	1
455.2T	10	1	14127G	10	1	9178A	10	1
4496T	10	1	11164G	10	1	13116T	10	1
8754T	10	1	6209T	10	1	9734T	10	1
14819C	10	1	7675T	10	1	3372C	10	1
13105G!	10	1	5087C	10	1	11269T	10	1
535T	10	1	9108G	10	1	4466G	10	1
2417G	10	1	3275G	10	1	4943G	10	1
4976G	10	1	633G	10	1	5141T	10	1
9809C	10	1	5894d	10	1	5603T!	10	1
12546T	10	1	10071C	10	1	8224G	10	1
1717C	10	1	13741G	10	1	10039G	10	1
2484T	10	1	4706G	10	1	12528A	10	1
4676T	10	1	2251G	10	1	12705T!	10	1
12950G!	10	1	291T	10	1	13767A	10	1
7146G	10	1	12425G	10	1	14109T	10	1
185T	10	1	6221A	10	1	4194T	10	1
357G	10	1	7055G!	10	1	978G	10	1
6548T	10	1	11302T	10	1	5321T	10	1
6989G	10	1	15978T	10	1	184A	10	1
8248G	10	1	13981T	10	1	783G	10	1
13880A	10	1	14794T	10	1	850C	10	1
7915T	10	1	3210T	10	1	7257G	10	1
15103T	10	1	8417T	10	1	8922T	10	1
15763G	10	1	11317G	10	1	9136G	10	1
5509C	10	1	1686G	10	1	14020C	10	1
12512T	10	1	2283T!	10	1	14374C	10	1
13893G	10	1	3096C	10	1	16291G	10	1
16264T!	10	1	248G	10	1	2836A	10	1
2395d	10	1	3525T	10	1	10939T	10	1
13485G	10	1	3600T	10	1	8922T!	10	1
3796T	10	1	11852A	10	1	2060G	10	1
4454A	10	1	14669G	10	1	9347G!	10	1
8087C	10	1	4312T	10	1	9884T	10	1
467T	10	1	10664T	10	1	9136G!	10	1
12930T	10	1	13276G	10	1	8113A	10	1
9311C	10	1	3516A	10	1	12142G	10	1
8769G	10	1	9347G	10	1	12798T	10	1
9580G	10	1	9818T	10	1	10319G	10	1
12164A	10	1	2245G	10	1	2491.1C	10	1
2863C	10	1	5603T	10	1	5104T	10	1
4506G	10	1	15136T	10	1	13506T!	10	1
4634C	10	1	8428T	10	1	15731A	10	1
7692C	10	1	16188G	10	1	9105T	10	1
7693T	10	1	2759C	10	1	7967T	10	1

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114A	10	1	2623G	10	1
16294G	10	1	4574G	10	1
12609A	10	1	1386C	10	1
3618C	10	1	5515G	10	1
2484.1C	10	1	3756G!	10	1
4562C	10	1	9776T	10	1
10707G	10	1	13466C	10	1
11341G	10	1	14326C	10	1
2285C	10	1	9476G	10	1
2758A!	10	1	10745T	10	1
2882C	10	1	294A	10	1
14659T	10	1	4038G	10	1
6692G	10	1	4204C	10	1
16474T	10	1	6644T	10	1
2951G	10	1	8284T	10	1
13062G	10	1	8420G	10	1
957T	10	1	4052T	10	1
8970T	10	1	6134T	10	1
12303T	10	1	12562T	10	1
12436T	10	1	8725G	10	1
15337T	10	1	15541C	10	1
15692G	10	1	9090A	10	1
16230G!	10	1	6377T	10	1
5029C	10	1	9488T	10	1
4044G	10	1	15312C	10	1
7154G	10	1	15461C	10	1
597T	10	1	15586C	10	1
2072G	10	1	6170T	10	1
4896C	10	1	10114C	10	1
2609C	10	1	10128A	10	1

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Suppl.Table 2: Data from Li et al. (1) checked according haplogroup concordance in HaploGrep 2 with Phylotree 16. Out of the 2,000 samples in this NGS study, 91 show minor haplogroup discordances, which HaploGrep 2 highlights mostly because of incomplete data. The sample name contains the haplogroup used by the authors as of Phylotree 13. Raw data can be found in their Supplementary Table 1: <http://www.nature.com/ejhg/journal/v22/n8/extref/ejhg2013282x1.xls>

Sample	Kulczynski (Quality)	Hamming	Jaccard	Kimura2P
123804_J1c5	J1c5f (0.920)	J1c5f	J1c5f	J1c5
122765_H1a3	H (0.767)	H	H1a3	H1a3, H, H3+73
100200536_T2f1	T2f1a1 (0.973)	T2f1a1	T2f1a1	T2
55926_T2f1	T2f1a1 (0.961)	T2f1a1	T2f1a1	T2
14546-3_H1	H1 (0.793)	H1	H1e+16129	H1, H1e+16129, H1j1, H2+16129
128343_H2a2a	H1ab (0.560)	H2a2a1	H1ab	H2a2a1
5217785_V3	V+@72 (0.902)	V3a1	V3a1	V3, V3a1, V+@72
115006_T2f	T2f7 (0.963)	T2f7	T2f7	T2
5152350_H2a2a	H1ba (0.579)	H2a2a1	H1ba	H2a2a1
5198911_H1	H1 (0.898)	H1	H1bx	H1, H1bx
82526_J2a1a1	J2a1a1 (0.962)	J2a1a1, J2a1a1a	J2a1a1a	J2a1a1a
5173313_U5b1	U5b1+16189+@16192 (0.921)	U5b1	U5b1	U5b1, U5b1+16189+@16192
135074_T2f1	T2f1a1 (0.982)	T2f1a1	T2f1a1	T2+16189
100200907_U7	U7 (0.731)	H2a	U7	H2a
5190920_H2a2a	H2a2a1 (0.500)	H2a2a1	B4a1a1a12	H2a2a1
146635_U4a3	U4a2g (0.723)	H6	U4a2g	H6
104812_T2f1	T2f1a1 (0.962)	T2f1a1	T2f1a1	T2
100200419_H26	H26a1a1 (0.880)	H26a1a	H26a1a1	H26a1a, H26a1a1
135785_T2f1	T2f1a1 (0.991)	T2f1a1	T2f1a1	T2+16189
5188676_J1c3	J1c3c (0.909)	J1c3	J1c3	J1c3, J1c3c
77254_H2a2a	H1bm (0.541)	H2a2a1	H1bm	H2a2a1
5236_H2a2a	H2a2a1 (0.500)	H2a2a1	P3	H2a2a1
5054_I2a	I2a (0.770)	H2+16129	I2a	H2+16129
5190205_H6	H6 (0.920)	H6	H6c	H6, H6c
5197780_T2f1	T2f1a1 (0.973)	T2f1a1	T2f1a1	T2
5165532_T2b7	T2b7a (0.969)	T2b7a	T2b7a	T2b7a1
100201194_T2f1	T2f1a1 (0.943)	T2f1a1	T2f1a1	T2
59673_H2a2a	H2a2a1 (0.500)	H2a2a1	H1as	H2a2a1, H2a2a2
100200094_H1f	H1ap (0.882)	H1ap	H1ap	H1ap1
90902-6_K1a11	K1a11 (0.953)	K1a11	K1a11	K1a+150
5162555_H2a2a	U4a2a (0.515)	H2a2a1	U4a2, U4a2a	H2a2a1
100200313_HV	H2+152 (0.834)	H2+152	HV	H2+152
41753_T2f	T2f7 (0.967)	T2f7	T2f7	T2+16189
5152685_H27	H (0.772)	H	H	H10+(16093)
115743_U5a2b1a	U5a2b1a (0.941)	U5a2b	U5a2b1a	U5a2b1a
137686_T2f1	T2f1a1 (0.960)	T2f1a1	T2f1a1	T2

30682_T2f1	T2f1a1 (0.977)	T2f1a1	T2f1a1	T2
28206_K1a11	K1a11 (0.984)	K1a11	K1a11	K1a+150
5254782_H2a2a	R2c (0.515)	H2a2a1	H2a2a2	H2a2a1, H2a2a2
5160886_H1c2	H1c2a (0.746)	H1c	H1c2a	H1c, H1c2a
66102_J1c5	J1c5f (0.881)	J1c5f	J1c5f	J1c5
100200778_T2f	T2f7 (0.947)	T2f7	T2f7	T2
100200673_J2a1a1	J2a1a1 (0.953)	J2a1a1, J2a1a1a	J2a1a1a	J2a1a1a
5249090_H5'36	H5u (0.754)	H2a2	H5u	H5'36, H2a2, H2, H5u
100201181_I4	I4a (0.805)	N1a1b	N1a1b	N1a1b
5246371_H2a2a	H86 (0.562)	H2a2a1	H86	H2a2a1
14313_H2a2a	H39a (0.536)	H2a2a1	H39a	H2a2a1
158362_HV0	HV (0.827)	HV	HV0+195	HV0+195, HV0f
48801_R9b1a3	R9b1a3 (0.901)	R9b1	R9b1	R9b1
90464_J2a1a1	J2a1a1 (0.959)	J2a1a1, J2a1a1a	J2a1a1a	J2a1a1a
91280_H2a2a	U4a2a (0.515)	H2a2a1	U4a2, U4a2a	H2a2a1
100200668_H6	H6c1 (0.971)	H6c1	H6c1	H6c
5254465_H32	H2+152 (0.777)	H2+152	H1a3	H32, H2a+152 16311, H2+152
125506_T2f	T2f (0.918)	T2f	T2f	T2+16189
5184270_H2a2a	U4a2a (0.515)	H2a2a1	U4a2, U4a2a	H2a2a1
5222_T2b	T2b (0.779)	T2	T2	T2
81620_H2a2a	L4b (0.518)	H2a2a1	L4b	H2a2a1
100200732_HV0	V+@72 (0.919)	HV	HV	V+@72
100200441_J1c5	J1c5f (0.931)	J1c5f	J1c5f	J1c5
5210240_T2f1	T2f1a1 (0.977)	T2f1a1	T2f1a1	T2+16189
F468-3_U5a2a	U5a2 (0.915)	U5a2	U5a2	U5a2a
5192692_HV0b_HV0c	HV0e (0.671)	H2a	HV0e	HV0+195
126431_J2a1a1	J2a1a1 (0.953)	J2a1a1, J2a1a1a	J2a1a1a	J2a1a1a
100200773_H2a2a	H2a2a1 (0.500)	H2a2a1	H26b	H2a2a1
99234_T2b7	T2b7a (0.985)	T2b7a	T2b7a	T2b7a1
5242613_I1	I (0.783)	I	I	I1
5204091_K1a11	K1a11 (0.929)	K1a11	K1a11	K1a+150
34521_H2a2a	R1 (0.533)	H2a2a1	H3+73	H2a2a1
5158123_H2a2a	H2a1f (0.548)	H2a2a1	H2a1f	H2a2a1
5209960_T2f1	T2f1a1 (0.973)	T2f1a1	T2f1a1	T2
31845-6_T2	T2 (0.895)	T2j1	T2j1	T2
2911705_H2a2a	H2a2a1 (0.500)	H2a2a1	H2a1f	H2a2a1
45603_T2f1	T2f1a1 (0.973)	T2f1a1	T2f1a1	T2
5221801_H13a1a1a	H50 (0.850)	H50	H13a1a1a	H13a1a1a, H2+152, H50, H66
90168_T2f1	T2f1a1 (0.977)	T2f1a1	T2f1a1	T2
136942_T2f	T2f7 (0.967)	T2f7	T2f7	T2+16189
13054_T2f1	T2f1a1 (0.972)	T2f1a1	T2f1a1	T2
1005_H1a	H1a (0.871)	H2	H1a	H1a, H2
112921_T2f1	T2f1a1 (0.991)	T2f1a1	T2f1a1	T2+16189

<b>127061_J1c5</b>	J1c5f (0.913)	J1c5f	J1c5f	J1c5
<b>68703_H</b>	H2+152 (0.808)	H2+152	H35a	H2+152
<b>5139_U3a</b>	U3a1c (0.785)	U3	U3a1c	U3
<b>5024_H</b>	H1a3 (0.806)	H	H1a3	H, H1a3, H3+73
<b>158970_H2a2a</b>	H2a2a1 (0.500)	H2a2a1	H39a	H2a2a1
<b>5014_J1c</b>	J1c2o (0.716)	H2a2a1	J1c2o	H2a2a1, R2'JT
<b>5222755_J1c3</b>	J1c3c (0.865)	J1c3	J1c3	J1c3, J1c3c
<b>31426_T2f</b>	T2f1 (0.977)	T2f1	T2f1	T2+16189
<b>100200836_H</b>	H2+195+146 (0.896)	H	H2+195+146	H, H2a, H1+16311, H3+16311, H2+195+146
<b>31452_H32</b>	H2+152 (0.831)	H2+152	H32	H32, H2+152
<b>100200663_T2f1</b>	T2f1 (0.956)	T2+16189	T2+16189	T2+16189
<b>84022_H1</b>	H1 (0.898)	H1	H1bx	H1, H1bx
<b>100201176_T2f1</b>	T2f1a1 (0.937)	T2f1a1	T2f1a1	T2
<b>57713_H2a2a</b>	U4a2a (0.515)	H2a2a1	U4a2, U4a2a	H2a2a1
<b>5153002_H2a2a</b>	H1ah (0.546)	H2a2a1	H1ah	H2a2a1
<b>86623_T</b>	T2b7a3 (0.750)	H1bd	T2b7a3	H1bd, H1bm, H1+16311
<b>87986_H15</b>	H (0.809)	H	H15b	H, H15b
<b>100200409_H27</b>	H1aa (0.876)	H1aa	H1aa	H
<b>5153094_H1c</b>	H1c (0.784)	H2	H1c	H2

Suppl.Table 3: Data from the 1000G Phase 1 (2) of 1,074 samples. The different classifications in this higher quality data especially seen in Kimura2P are here mostly the result of the weighting of polymorphisms: here the distance is based on an evolutionary model of transition and transversion rate, instead of the phylogenetic weights (see Suppl.Table1) otherwise applied. Input data can be found on:

[ftp://ftp.1000genomes.ebi.ac.uk/vol1/ftp/phase1/analysis\\_results/integrated\\_call\\_sets/ALL.chrMT.phase1\\_samtools\\_si.20101123.snps.low\\_coverage.genotypes.vcf.gz](ftp://ftp.1000genomes.ebi.ac.uk/vol1/ftp/phase1/analysis_results/integrated_call_sets/ALL.chrMT.phase1_samtools_si.20101123.snps.low_coverage.genotypes.vcf.gz)

Sample	Kulczynski (Quality)	Hamming	Jaccard	Kimura2P
NA19782	A2+(64) (0.951)	A2+(64)	A2+(64)	A2v1+152
HG00635	D4j15 (0.902)	D4j15	D4j15	D4j+146
HG00581	D4j15 (0.902)	D4j15	D4j15	D4j+146
HG00578	D4j15 (0.902)	D4j15	D4j15	D4j+146
NA18573	D5b1c1a (0.957)	D5b1c1	D5b1c1	D5b1c1, D5b1c1a
NA20802	H2+152 (0.801)	H18	H18	H2+152, H32
NA20282	L1b1a (0.982)	L1b1a	L1b1a	L1b1a4
NA18519	L2a1+143 (0.968)	L2a1+143	L2a1+143	L2a1n
NA19625	L2a1b+143 (0.970)	L2a1b+143	L2a1b+143	L2a1+143
NA20414	L2a1b+143 (0.970)	L2a1b+143	L2a1b+143	L2a1+143
NA19225	L2a1n (0.949)	L2a1n	L2a1n	L2a1+143, L2a1+143+16189 (16192)
NA19247	L2b (0.943)	L2b3c, L2b	L2b3c	L2b3c
HG00406	N9a10+16311 (0.956)	N9a10+16311	N9a10b	N9a10b
HG00556	N9a2'4'5 (0.861)	N9a2'4'5	N9a2	N9a2, N9a2'4'5
NA12750	T2f1a1 (0.958)	T2f1a1	T2f1a1	T2+16189
HG00097	T2f1a1 (0.977)	T2f1a1	T2f1a1	T2+16189
NA12287	U2e1b (0.944)	U2e1b	U2e1b	U2e1b2
NA20765	U5a2b2 (0.986)	U5a2b2	U5a2b2	U5a2b2a1
HG00260	U5b2a2c (0.976)	U5b2a2c	U5b2a2c	U5b2a2
NA11893	V+@72 (0.946)	V23	V23	V23, V+@72



Suppl.Table 4: Data from the 1000G Phase 3 (3) of 2,534 samples. Minor problems with the provided VCF file result in a higher number of discordant haplogroups. Input data to be found on the 1000G FTP Server: [http://ftp.1000genomes.ebi.ac.uk/vol1/ftp/release/20130502/ALL.chrMT.phase3\\_callmom.20130502.genotypes.vcf.gz](http://ftp.1000genomes.ebi.ac.uk/vol1/ftp/release/20130502/ALL.chrMT.phase3_callmom.20130502.genotypes.vcf.gz)

Sample	Kulczynski (Quality)	Hamming	Jaccard	Kimura2P
HG02301	A2+(64)+@153 (0,827)	A2	A2	A2+(64)+@153, A2
HG01486	A2+(64)+@153 (0,850)	A2	A2	A2+(64)+@153, A2
HG01443	A2+(64)+@153 (0,861)	A2	A2	A2+(64)+@153, A2
HG01951	A2+(64)+@153 (0,883)	A2	A2	A2+(64)+@153, A2
HG01892	A2+(64)+@153 (0,883)	A2	A2	A2+(64)+@153, A2
NA19782	A2+(64)+@153 (0,887)	A2	A2	A2+(64)+@153, A2
HG02298	A2+(64)+@153 (0,910)	A2	A2	A2+(64)+@153, A2
NA19670	A2d1a (0,917)	A2d1a	A2d1a	A2, A2d
NA19789	A2d1a (0,923)	A2d1a	A2d1a	A2, A2d
HG01250	A2q (0,879)	A2	A2q	A2q, A2
HG01259	A2q (0,879)	A2	A2q	A2q, A2
HG01134	A2q (0,879)	A2	A2q	A2q, A2
HG01372	A2q (0,879)	A2	A2q	A2q, A2
HG01374	A2q (0,879)	A2	A2q	A2q, A2
HG01342	A2v (0,919)	A2	A2v	A2v, A2
HG01872	B4 (0,742)	B4	B4	R0+16189
HG02072	B4+16261 (0,827)	B4+16261	B4+16261	R0+16189
HG02122	B4a (0,833)	B4a	B4a	R0+16189
NA18546	B4a (0,833)	B4a	B4a	R0+16189
NA18617	B4a1c+146 (0,854)	B4a1c+146	B4a1c+146	R0+16189
HG02409	B4c (0,821)	B4c	B4c	R0+16189
HG02385	B4c2 (0,903)	B4c2	B4c2	R0+16189
HG00419	B4g (0,796)	B4g	B4g	R
HG00631	B4g (0,933)	B4g	B4g	R0+16189
HG01869	B4h (0,848)	B4h	B4h	R0+16189
HG02399	B4h (0,855)	B4h	B4h	R0+16189
HG00654	B4h (0,857)	B4h	B4h	R0+16189
HG00729	B4h (0,866)	B4h	B4h	R0+16189
NA18614	B4h1 (0,866)	B4h1	B4h1	R0+16189
NA18541	B4i1 (0,895)	B4i1	B4i1	R0+16189
NA18536	B4k (0,893)	B4k	B4k	R0+16189
NA18549	B4k (0,938)	B4k	B4k	R0+16189
HG00543	B5a2 (0,815)	B5a2	B5a2	R30
HG02164	B6a (0,858)	B6a	B6a	R11'B6
HG02374	B6a1 (0,813)	B6a1	B6a1	R11'B6
HG01982	C (0,833)	C	C1b	C1b
HG01950	C (0,839)	C	C1b	C1b
HG01303	C (0,850)	C	C1c	C1c

<b>HG02292</b>	C (0,853)	C	C1b	C1b
<b>HG01932</b>	C (0,857)	C	C1b	C1b
<b>HG01942</b>	C (0,869)	C	C1b	C1b
<b>HG02278</b>	C (0,870)	C	C1b	C1b
<b>HG01961</b>	C (0,871)	C	C1b	C1b
<b>HG01248</b>	C (0,872)	C	C1b	C1b, C1d
<b>HG02266</b>	C (0,880)	C	C	C1b
<b>HG01571</b>	C1b (0,862)	C	C1b	C1b
<b>HG01948</b>	C1b (0,887)	C	C	C1b
<b>HG02275</b>	C1b (0,887)	C	C	C1b
<b>HG01947</b>	C1b (0,899)	C	C	C1b
<b>HG02265</b>	C1b (0,911)	C	C	C1b
<b>NA19726</b>	C1b (0,913)	C	C	C1b
<b>NA20299</b>	C1b+16311 (0,837)	C	C1b+16311	C1b+16311
<b>HG01066</b>	C1c (0,862)	C	C1c	C1c
<b>HG01944</b>	C1c (0,871)	C	C1c	C1c
<b>NA19732</b>	C1c (0,875)	C	C1c	C1c
<b>HG01369</b>	C1d1c1 (0,858)	C	C1d1d	C1d1c1
<b>HG02256</b>	C1d1c1 (0,880)	C	C	C1d1c1, C1d, C1d1
<b>HG01341</b>	C1d2 (0,901)	C	C	C1d2, C1d
<b>NA18566</b>	C5+16093 (0,871)	C	C5+16093	C5+16093
<b>HG02151</b>	C7a (0,937)	C7a	C7a	C7a2
<b>HG00844</b>	C7a (0,937)	C7a	C7a	C7a2
<b>HG01808</b>	C7a (0,944)	C7a	C7a	C7a2
<b>HG00662</b>	D4b1b2 (0,911)	D4b1b2	D4b1b2	D4b1b
<b>HG00635</b>	D4j15 (0,875)	D4j15	D4j15	D4j+146
<b>HG00581</b>	D4j15 (0,875)	D4j15	D4j15	D4j+146
<b>HG01852</b>	D5b1c1a (0,922)	D5b1c1	D5b1c1	D5b1c1a, D5b1c1
<b>NA18573</b>	D5b1c1a (0,924)	D5b1c1	D5b1c1	D5b1c1a, D5b1c1
<b>HG01800</b>	F1a1a (0,885)	F1a1	F1a1a	F1a1a, F1a1
<b>NA07051</b>	H (0,695)	H	H24b	H, H1+16311, H3+16311, H3ao, H7a, H22, H24b, H76, H80
<b>NA20809</b>	H3b3 (0,844)	H3	H3	H3
<b>NA12778</b>	H52 (0,902)	H52	H52	H10+(16093)
<b>HG02652</b>	HV13 (0,766)	HV13	HV0	HV13
<b>HG03238</b>	J1b8 (0,904)	J1b8	J1b8	J1b
<b>NA12874</b>	J1c8a (0,953)	J1c2	J1c2	J1c8a, J1c2, J1c8
<b>HG02111</b>	L0a1a+200 (0,947)	L0a1a+200	L0a1a+200	L0a1a2
<b>NA19042</b>	L0a1a+200 (0,948)	L0a1a+200	L0a1a+200	L0a1a2
<b>NA19311</b>	L0a1a+200 (0,953)	L0a1a+200	L0a1a+200	L0a1a2
<b>NA19027</b>	L0a1a+200 (0,953)	L0a1a+200	L0a1a+200	L0a1a2
<b>NA19350</b>	L0a1a+200 (0,954)	L0a1a+200	L0a1a+200	L0a1a2
<b>NA19379</b>	L0a1a+200 (0,956)	L0a1a+200	L0a1a+200	L0a1a2
<b>HG01108</b>	L0a1a+200 (0,960)	L0a1a+200	L0a1a+200	L0a1a2

<b>NA19440</b>	L0a1c (0,940)	L0a1	L0a1c	L0a1c, L0a1
<b>HG02635</b>	L1b1a14 (0,963)	L1b1a14	L1b1a14	L1b1a+189
<b>NA20282</b>	L1b1a4 (0,933)	L1b1a	L1b1a4	L1b1a4
<b>HG03057</b>	L1b1a4 (0,954)	L1b1a	L1b1a4	L1b1a4
<b>HG02562</b>	L1b1a7a (0,963)	L1b1a7	L1b1a7a	L1b1a7a, L1b1a7
<b>HG03096</b>	L1c1c (0,891)	L1c1c	L1c1c	L1c1
<b>HG02611</b>	L1c1c (0,907)	L1c1c	L1c1c	L1c1'2'4'6
<b>HG03464</b>	L1c1c (0,911)	L1c1c	L1c1c	L1c1
<b>NA18519</b>	L2a1+143 (0,941)	L2a1+143	L2a1+143	L2a1n
<b>NA19225</b>	L2a1+143+16189 (16192) (0,937)	L2a1+143+16189 (16192)	L2a1+143+16189 (16192)	L2a1n
<b>HG02325</b>	L2a1+143+16189 (16192) (0,941)	L2a1+143+16189 (16192)	L2a1+143+16189 (16192)	L2a1n
<b>HG03342</b>	L2a1+143+16189 (16192) (0,955)	L2a1+143+16189 (16192)	L2a1+143+16189 (16192)	L2a1n
<b>HG03121</b>	L2a1+143+16189 (16192) (0,965)	L2a1+143+16189 (16192)	L2a1+143+16189 (16192)	L2a1n
<b>NA19099</b>	L2a1m1a (0,945)	L2a1m1a	L2a1m1a	L2a1m
<b>HG02645</b>	L2b (0,947)	L2b	L2b	L2b3b
<b>HG03294</b>	L3b1b (0,907)	L3b1b	L3b1b	L3b1
<b>HG02586</b>	L3d1b1b (0,908)	L3d1b1b	L3d1b1b	L3d1b1
<b>HG02574</b>	L3d2a (0,895)	L3d2a	L3d2a	L3d2b
<b>HG03247</b>	L3d2a (0,919)	L3d2a	L3d2a	L3d2b
<b>HG03129</b>	L3d2a (0,938)	L3d2a	L3d2a	L3d2b
<b>HG01073</b>	L3e1e2 (0,885)	L3e1e	L3e1e	L3e1e
<b>HG01323</b>	L3e1e2 (0,904)	L3e1e	L3e1e	L3e1e
<b>HG01326</b>	L3e1e2 (0,904)	L3e1e	L3e1e	L3e1e
<b>HG03668</b>	M (0,765)	M	M3	M, M3, M9, M33+16362
<b>HG04076</b>	M (0,848)	M	M3	M, M3
<b>HG02024</b>	M10a1a1b1 (0,939)	M10a1a1b1	M10a1a1b1	M10a1a1b
<b>HG02025</b>	M10a1a1b1 (0,939)	M10a1a1b1	M10a1a1b1	M10a1a1b
<b>HG03730</b>	M18a (0,925)	M18	M18a	M18a, M18
<b>HG03646</b>	M18a (0,941)	M18	M18	M18a, M18
<b>HG04060</b>	M18a (0,957)	M18	M18	M18a, M18
<b>HG02016</b>	M23 (0,763)	M23'75	M23	M23'75
<b>HG02655</b>	M2a1a (0,901)	M2a1	M2a1	M2a1a, M2a1
<b>HG02654</b>	M2a1a (0,912)	M2a1	M2a1	M2a1a, M2a1
<b>HG02691</b>	M2a1a (0,920)	M2a1	M2a1	M2a1a, M2a1
<b>HG03913</b>	M2a1a (0,931)	M2a1	M2a1	M2a1a, M2a1
<b>HG04211</b>	M2a1a (0,939)	M2a1	M2a1	M2a1a, M2a1
<b>HG02687</b>	M30 (0,865)	M4"67	M30	M30
<b>HG03660</b>	M30 (0,896)	M4"67	M30	M30
<b>HG03894</b>	M30 (0,899)	M4"67	M30	M30
<b>HG03693</b>	M30 (0,899)	M4"67	M30	M30
<b>HG03914</b>	M30 (0,902)	M4"67	M30	M30
<b>HG03782</b>	M30 (0,913)	M4"67	M30	M30

<b>NA21100</b>	M30 (0,915)	M4"67	M30	M30
<b>HG03716</b>	M30 (0,943)	M4"67	M4"67	M30
<b>HG04090</b>	M4"67 (0,865)	M4"67	M30	M30
<b>HG02780</b>	M4"67 (0,865)	M4"67	M30	M30
<b>HG04176</b>	M65a+@16311 (0,877)	M65a+@16311, M65a	M65a1	M65a+@16311, M65a1
<b>HG04229</b>	M65a+@16311 (0,881)	M65a+@16311, M65a	M65a1	M65a+@16311, M65a1
<b>HG03808</b>	M65a+@16311 (0,886)	M65a+@16311, M65a	M65a1	M65a+@16311, M65a1
<b>HG03986</b>	M6b (0,856)	M6b	M6b	M6
<b>NA19011</b>	M7a+16324 (0,895)	M7a+16324	M7a1	M7a1
<b>HG01840</b>	M7b1a1f (0,938)	M7b1a1f	M7b1a1f	M7b1a1a
<b>HG02079</b>	M7b1a1f (0,941)	M7b1a1f	M7b1a1f	M7b1a1a
<b>HG02355</b>	M7b1a1f (0,948)	M7b1a1f	M7b1a1f	M7b1a1a
<b>HG02031</b>	M7b1a1f (0,953)	M7b1a1f	M7b1a1f	M7b1a1a
<b>HG00406</b>	N9a10b (0,911)	N9a10+16311	N9a10b	N9a10b
<b>HG00556</b>	N9a2'4'5 (0,807)	N9a2'4'5	N9a2	N9a2'4'5, N9a2
<b>HG03851</b>	R (0,706)	R	R7a'b	R
<b>HG02774</b>	R (0,718)	R	R31a	R
<b>HG02184</b>	R0+16189 (0,657)	B4	B4	R0+16189
<b>HG03706</b>	R31a (0,746)	R	R31a	R
<b>HG02790</b>	R31a (0,761)	R	R31a	R
<b>HG03770</b>	R5a2b (0,871)	R5a2	R5a2b	R5a2b
<b>NA20821</b>	T2f (0,927)	T2f	T2f	T2+16189
<b>NA12287</b>	U2e1b (0,934)	U2e1b	U2e1b	U2e1b2
<b>HG01610</b>	U5a1+@16192 (0,879)	U5a1+@16192, U5a1, U5a1e	U5a1e	U5a1+@16192
<b>HG01530</b>	U5a2 (0,923)	U5a2	U5a2	U5a2a
<b>HG00260</b>	U5b2a2c (0,957)	U5b2a2c	U5b2a2c	U5b2a2
<b>HG01746</b>	U5b3a2 (0,889)	U5b	U5b3a2	U5b
<b>HG01620</b>	V+@16298 (0,847)	V2b	V2b	V+@16298
<b>HG00113</b>	X2b8 (0,916)	X2b	X2b	X2b8, X2b
<b>HG00100</b>	X2b8 (0,916)	X2b	X2b	X2b8, X2b

## References

- Li, S., Besenbacher, S., Li, Y., Kristiansen, K., Grarup, N., Albrechtsen, A., Sparsø, T., Korneliussen, T., Hansen, T., Wang, J., *et al.* (2014) Variation and association to diabetes in 2000 full mtDNA sequences mined from an exome study in a Danish population. *Eur. J. Hum. Genet.*, **22**, 1040–1045.
- Abecasis, G.R., Auton, A., Brooks, L.D., DePristo, M. a, Durbin, R.M., Handsaker, R.E., Kang, H.M., Marth, G.T. and McVean, G. a (2012) An integrated map of genetic variation from 1,092 human genomes. *Nature*, **491**, 56–65.
- Auton, A., Abecasis, G.R., Altshuler, D.M., Durbin, R.M., Abecasis, G.R., Bentley, D.R., Chakravarti, A., Clark, A.G., Donnelly, P., Eichler, E.E., *et al.* (2015) A global reference for human genetic variation. *Nature*, **526**, 68–74.