

Table S4. Full list of hDMRs.

YH heterozygote	Chr	start position	end position	size(bp)	# of CpG	allele 1 methylation		allele 2 methylation		<i>P</i> -value (fisher test)	repeat level		
						allele	total methylated	allele	total methylated				
chr10:1428597:M	chr10	1E+06	1E+06	253	13	A	14	13	C	14	2	3.48E-05	0
chr10:1995396:S	chr10	2E+06	2E+06	408	10	C	17	17	G	6	1	0.00018	0
chr10:2974699:W	chr10	3E+06	3E+06	378	7	A	32	22	T	31	6	0.00012	0
chr10:6429511:R	chr10	6E+06	6E+06	323	9	A	15	7	G	37	1	0.00032	0
chr10:6956611:M	chr10	7E+06	7E+06	322	6	A	11	3	C	30	26	0.0006	0
chr10:11278201:R	chr10	1E+07	1E+07	191	5	A	4	0	G	29	27	0.00037	0
chr10:46390045:R	chr10	5E+07	5E+07	290	17	A	54	44	G	24	9	0.00022	0
chr10:49331990:S	chr10	5E+07	5E+07	350	8	C	8	2	G	20	20	7.43E-05	0
chr10:97062308:M	chr10	1E+08	1E+08	263	5	A	14	3	C	27	23	0.0001	0
chr10:102890248:S	chr10	1E+08	1E+08	186	19	C	22	9	G	43	1	0.00012	0
chr10:115851453:K	chr10	1E+08	1E+08	236	8	G	10	0	T	18	12	0.00088	0
chr10:123862117:Y	chr10	1E+08	1E+08	318	22	C	14	0	T	14	8	0.00097	0
chr10:126346830:K	chr10	1E+08	1E+08	265	5	G	6	0	T	19	16	0.00047	0
chr10:126671779:K	chr10	1E+08	1E+08	416	11	G	61	8	T	58	53	3.41E-19	0
chr10:127574384:R	chr10	1E+08	1E+08	376	32	A	63	1	G	185	101	2.19E-16	0
chr10:127574488:Y	chr10	1E+08	1E+08	173	17	C	40	6	T	53	37	1.07E-07	0
chr10:127574499:R	chr10	1E+08	1E+08	343	37	A	87	59	G	82	8	1.68E-15	0
chr10:127574788:S	chr10	1E+08	1E+08	376	39	C	202	126	G	25	0	2.48E-10	0
chr10:127575080:M	chr10	1E+08	1E+08	388	46	A	277	208	C	176	61	1.89E-17	0
chr10:127575425:K	chr10	1E+08	1E+08	400	29	G	428	269	T	97	4	2.59E-29	0
chr10:127604847:K	chr10	1E+08	1E+08	322	5	G	65	21	T	32	27	1.23E-06	0
chr10:130319319:S	chr10	1E+08	1E+08	319	5	C	14	9	G	12	0	0.00071	0
chr10:132025695:S	chr10	1E+08	1E+08	258	11	C	8	1	G	30	25	0.00043	0
chr10:133047289:W	chr10	1E+08	1E+08	338	6	A	12	1	T	11	10	0.00011	0
chr10:135192305:S	chr10	1E+08	1E+08	264	23	C	57	1	G	11	8	1.92E-07	0
chr11:179480:W	chr11	179375	179522	148	23	A	27	8	T	25	24	4.86E-07	0.0135
chr11:487359:R	chr11	487286	487450	165	9	A	14	13	G	5	0	0.00052	0
chr11:1007231:R	chr11	1E+06	1E+06	329	5	A	16	14	G	62	14	2.97E-06	0.0061
chr11:1620616:Y	chr11	2E+06	2E+06	232	10	C	9	1	T	27	24	4.44E-05	0
chr11:2126331:S	chr11	2E+06	2E+06	408	9	C	13	4	G	18	17	0.0003	0
chr11:2787141:Y	chr11	3E+06	3E+06	258	8	C	9	9	T	6	0	0.0002	0
chr11:11639624:R	chr11	1E+07	1E+07	204	7	A	20	19	G	4	0	0.00047	0
chr11:19941915:S	chr11	2E+07	2E+07	395	9	C	15	8	G	20	0	0.00027	0
chr11:43501001:M	chr11	4E+07	4E+07	254	8	A	24	21	C	98	5	5.61E-16	0.0236
chr11:49830208:S	chr11	5E+07	5E+07	245	13	C	12	2	G	14	13	0.00017	0
chr11:61264985:R	chr11	6E+07	6E+07	201	7	A	18	17	G	4	0	0.00068	0
chr11:67174754:Y	chr11	7E+07	7E+07	229	10	C	5	5	T	21	0	1.52E-05	0
chr11:113929139:Y	chr11	1E+08	1E+08	702	5	C	47	17	T	46	36	5.72E-05	0
chr11:119910353:R	chr11	1E+08	1E+08	311	9	A	13	13	G	26	10	0.00028	0
chr11:122184121:Y	chr11	1E+08	1E+08	208	5	C	7	0	T	11	10	0.00025	0
chr11:133433475:Y	chr11	1E+08	1E+08	308	16	C	36	0	T	32	10	0.00022	0
chr12:168079:Y	chr12	168029	168230	202	8	C	13	1	T	10	8	0.00073	0
chr12:380722:Y	chr12	380578	380926	349	16	C	77	0	T	22	7	1.15E-05	0
chr12:1330815:S	chr12	1E+06	1E+06	340	5	C	7	0	G	20	18	4.05E-05	0

chr12:7672519:R	chr12	8E+06	8E+06	185	12	A	6	0	G	20	19	3.04E-05	0
chr12:10155506:S	chr12	1E+07	1E+07	195	15	C	6	0	G	21	19	9.46E-05	0
chr12:11062670:S	chr12	1E+07	1E+07	695	6	C	29	12	G	32	30	1.38E-05	0.0504
chr12:11116497:M	chr12	1E+07	1E+07	407	7	A	22	19	C	5	0	0.00069	0
chr12:31261695:Y	chr12	3E+07	3E+07	250	5	C	18	15	T	6	0	0.00062	0
chr12:34170538:K	chr12	3E+07	3E+07	371	6	G	40	24	T	34	4	2.78E-05	0.0243
chr12:34216617:M	chr12	3E+07	3E+07	492	5	A	44	33	C	153	53	2.27E-06	0.0833
chr12:34261226:Y	chr12	3E+07	3E+07	348	8	C	33	9	T	48	43	9.89E-09	0.0747
chr12:36779804:R	chr12	4E+07	4E+07	309	11	A	16	15	G	20	5	3.78E-05	0.0194
chr12:40611140:K	chr12	4E+07	4E+07	367	5	G	22	4	T	23	16	0.00084	0
chr12:50494909:S	chr12	5E+07	5E+07	369	28	C	14	12	G	20	1	1.98E-06	0
chr12:50832665:R	chr12	5E+07	5E+07	307	17	A	19	1	G	14	13	3.26E-07	0
chr12:51377833:M	chr12	5E+07	5E+07	236	7	A	19	19	C	3	0	0.00065	0
chr12:56503583:S	chr12	6E+07	6E+07	294	8	C	14	13	G	52	0	6.85E-13	0
chr12:56503965:K	chr12	6E+07	6E+07	292	11	G	42	34	T	40	13	1.50E-05	0
chr12:56509545:R	chr12	6E+07	6E+07	340	6	A	44	30	G	16	1	1.85E-05	0
chr12:74242121:Y	chr12	7E+07	7E+07	388	7	C	18	1	T	11	9	5.00E-05	0
chr12:110944530:K	chr12	1E+08	1E+08	305	7	G	17	5	T	13	13	8.70E-05	0
chr12:120099514:S	chr12	1E+08	1E+08	307	12	C	32	11	G	47	40	8.14E-06	0
chr12:120840540:Y	chr12	1E+08	1E+08	288	12	C	13	12	T	10	1	0.00011	0
chr12:123602292:R	chr12	1E+08	1E+08	209	7	A	11	0	G	12	9	0.00034	0
chr12:123787670:R	chr12	1E+08	1E+08	305	6	A	15	13	G	6	0	0.00052	0
chr12:128041205:Y	chr12	1E+08	1E+08	250	5	C	22	21	T	9	3	0.00072	0
chr12:130743527:K	chr12	1E+08	1E+08	171	5	G	8	8	T	9	0	4.11E-05	0
chr12:130902574:Y	chr12	1E+08	1E+08	230	13	C	8	1	T	22	21	3.02E-05	0
chr12:131103205:R	chr12	1E+08	1E+08	183	10	A	20	18	G	10	0	2.20E-06	0
chr12:131253028:K	chr12	1E+08	1E+08	270	5	G	14	7	T	22	22	0.00041	0
chr13:18541183:Y	chr13	2E+07	2E+07	441	7	C	40	27	T	10	0	0.00011	0.0975
chr13:23375498:R	chr13	2E+07	2E+07	207	21	A	38	2	G	20	9	0.00055	0
chr13:26382992:R	chr13	3E+07	3E+07	391	5	A	25	22	G	5	0	0.00039	0
chr13:48793645:R	chr13	5E+07	5E+07	280	10	A	16	8	G	22	22	0.00026	0
chr13:49294657:W	chr13	5E+07	5E+07	377	5	A	24	12	T	19	19	0.0003	0.0557
chr13:62543854:R	chr13	6E+07	6E+07	1468	7	A	77	8	G	91	54	1.60E-11	0.0007
chr13:97994122:M	chr13	1E+08	1E+08	212	10	A	17	10	C	17	0	0.00015	0
chr13:99433607:R	chr13	1E+08	1E+08	314	14	A	29	0	G	21	8	0.00038	0
chr13:99954646:R	chr13	1E+08	1E+08	212	9	A	6	1	G	32	31	6.99E-05	0
chr13:100866569:K	chr13	1E+08	1E+08	102	15	G	14	11	T	23	1	4.57E-06	0
chr13:107144419:K	chr13	1E+08	1E+08	434	7	G	16	7	T	30	28	0.00039	0
chr13:110069271:R	chr13	1E+08	1E+08	244	6	A	5	0	G	14	13	0.00052	0
chr13:113607931:S	chr13	1E+08	1E+08	286	22	C	21	19	G	28	11	0.00032	0
chr13:113909298:Y	chr13	1E+08	1E+08	295	14	C	4	0	T	18	17	0.00068	0.0475
chr13:114065598:S	chr13	1E+08	1E+08	188	21	C	39	25	G	71	8	1.36E-08	0.0798
chr14:22486303:M	chr14	2E+07	2E+07	405	6	A	33	27	C	5	0	0.00092	0
chr14:23711366:Y	chr14	2E+07	2E+07	239	10	C	11	10	T	11	1	0.00017	0
chr14:32023501:W	chr14	3E+07	3E+07	468	15	T	28	4	A	998	9	0.00027	0.0085
chr14:34254292:Y	chr14	3E+07	3E+07	315	5	C	10	2	T	12	12	0.00014	0
chr14:53435871:Y	chr14	5E+07	5E+07	435	7	C	14	14	T	23	11	0.00087	0
chr14:54991314:S	chr14	5E+07	5E+07	312	7	C	40	17	G	24	21	0.0005	0
chr14:55541458:K	chr14	6E+07	6E+07	318	9	G	38	0	T	16	11	4.56E-08	0
chr14:64329980:K	chr14	6E+07	6E+07	202	8	G	15	13	T	11	1	0.00017	0
chr14:65474186:Y	chr14	7E+07	7E+07	357	5	C	19	17	T	22	4	5.75E-06	0

chr14:76560422:M	chr14	8E+07	8E+07	313	12	A	36	2	C	16	10	2.52E-05	0
chr14:77449437:Y	chr14	8E+07	8E+07	272	5	C	6	6	T	8	0	0.00033	0
chr14:78780542:Y	chr14	8E+07	8E+07	281	5	C	10	2	T	19	17	0.00039	0
chr14:100363281:M	chr14	1E+08	1E+08	202	11	A	23	16	C	12	0	6.26E-05	0
chr14:100572054:Y	chr14	1E+08	1E+08	199	5	C	12	11	T	6	0	0.00038	0
chr14:102851852:S	chr14	1E+08	1E+08	323	7	C	20	17	G	21	6	0.00043	0
chr14:103646201:R	chr14	1E+08	1E+08	193	6	A	10	9	G	8	0	0.00021	0
chr14:104607207:Y	chr14	1E+08	1E+08	265	9	C	34	30	T	7	0	1.47E-05	0
chr14:104779371:R	chr14	1E+08	1E+08	241	7	A	15	14	G	6	0	0.00013	0
chr14:105752519:S	chr14	1E+08	1E+08	232	5	C	9	0	G	8	7	0.00041	0
chr15:18760480:S	chr15	2E+07	2E+07	194	26	C	18	14	G	18	0	8.06E-07	0.0515
chr15:19221433:S	chr15	2E+07	2E+07	320	32	C	118	30	G	44	25	0.00032	0
chr15:19221635:S	chr15	2E+07	2E+07	339	19	C	89	32	G	76	56	2.03E-06	0.0885
chr15:19241223:M	chr15	2E+07	2E+07	327	40	A	67	52	C	48	7	9.67E-12	0
chr15:21665778:K	chr15	2E+07	2E+07	250	17	G	32	1	T	7	6	1.46E-05	0
chr15:23907821:S	chr15	2E+07	2E+07	241	7	C	21	19	G	21	6	4.82E-05	0
chr15:24518540:S	chr15	2E+07	2E+07	307	5	C	17	5	G	27	23	0.00031	0
chr15:27183361:Y	chr15	3E+07	3E+07	237	20	C	19	13	T	12	0	0.00014	0
chr15:29587002:R	chr15	3E+07	3E+07	193	5	A	14	13	G	10	0	5.61E-06	0
chr15:32658265:M	chr15	3E+07	3E+07	259	5	A	13	2	C	65	52	1.69E-05	0
chr15:49700263:R	chr15	5E+07	5E+07	373	5	A	12	2	G	14	14	1.24E-05	0
chr15:76910034:R	chr15	8E+07	8E+07	236	14	A	7	1	G	20	19	0.00016	0
chr15:82348680:K	chr15	8E+07	8E+07	329	5	G	10	10	T	18	6	0.00088	0
chr15:83752652:R	chr15	8E+07	8E+07	333	6	A	22	15	G	42	9	0.00038	0
chr15:84112597:M	chr15	8E+07	8E+07	193	10	A	5	0	C	30	28	6.47E-05	0
chr15:87053182:S	chr15	9E+07	9E+07	318	7	C	14	11	G	9	0	0.00034	0
chr15:87761290:W	chr15	9E+07	9E+07	217	10	A	17	0	T	15	8	0.00061	0.0184
chr15:88546567:R	chr15	9E+07	9E+07	180	8	A	9	0	G	19	13	0.00083	0
chr15:97467811:S	chr15	1E+08	1E+08	319	6	C	20	15	G	18	2	9.10E-05	0
chr15:99462251:R	chr15	1E+08	1E+08	253	7	A	6	0	G	14	13	0.00018	0
chr16:534472:M	chr16	534414	534582	169	11	A	26	25	C	18	6	9.46E-06	0
chr16:798095:R	chr16	798032	798199	168	11	A	37	36	G	13	0	3.95E-11	0
chr16:920089:R	chr16	919902	920251	350	15	A	21	21	G	8	2	5.89E-05	0
chr16:3490148:M	chr16	3E+06	3E+06	214	18	A	34	2	C	12	7	0.00042	0
chr16:4081729:Y	chr16	4E+06	4E+06	219	6	C	12	12	T	9	0	3.40E-06	0.0685
chr16:6815929:Y	chr16	7E+06	7E+06	225	8	C	9	2	T	24	21	0.00081	0
chr16:10112679:W	chr16	1E+07	1E+07	244	9	A	13	4	T	16	15	0.00099	0
chr16:14301774:M	chr16	1E+07	1E+07	280	6	A	23	22	C	17	8	0.00068	0.0143
chr16:28525472:Y	chr16	3E+07	3E+07	265	5	C	11	1	T	17	15	4.97E-05	0
chr16:31109809:R	chr16	3E+07	3E+07	329	8	A	7	0	G	20	20	1.13E-06	0
chr16:32393758:Y	chr16	3E+07	3E+07	295	11	C	34	11	T	56	43	4.88E-05	0
chr16:33377968:R	chr16	3E+07	3E+07	284	5	A	20	17	G	97	40	0.00041	0.0176
chr16:33447540:S	chr16	3E+07	3E+07	728	5	C	57	16	G	27	21	3.85E-05	0.0824
chr16:33833070:R	chr16	3E+07	3E+07	405	5	A	82	20	G	66	43	8.76E-07	0.0765
chr16:33868978:Y	chr16	3E+07	3E+07	129	19	C	370	105	T	34	22	5.61E-05	0
chr16:33869683:Y	chr16	3E+07	3E+07	197	20	C	115	24	T	35	29	4.30E-11	0
chr16:33871962:Y	chr16	3E+07	3E+07	133	16	C	37	13	T	8	8	0.00094	0
chr16:46589175:W	chr16	5E+07	5E+07	346	6	A	41	37	T	22	8	1.32E-05	0
chr16:69470887:R	chr16	7E+07	7E+07	238	6	A	16	15	G	20	6	0.00013	0
chr16:69512693:R	chr16	7E+07	7E+07	214	6	A	15	6	G	24	22	0.00087	0
chr16:69619885:Y	chr16	7E+07	7E+07	415	5	C	38	30	T	44	8	3.86E-08	0

chr16:71917802:K	chr16	7E+07	7E+07	292	7	G	16	15	T	10	2	0.00023	0
chr16:73434113:R	chr16	7E+07	7E+07	216	6	A	13	0	G	9	9	2.01E-06	0
chr16:78009255:Y	chr16	8E+07	8E+07	236	10	C	23	21	T	10	0	7.13E-07	0
chr16:79848365:Y	chr16	8E+07	8E+07	293	5	C	6	1	T	27	25	0.0005	0.041
chr16:83859489:Y	chr16	8E+07	8E+07	150	5	C	13	13	T	12	3	0.00011	0
chr16:87097703:M	chr16	9E+07	9E+07	212	6	A	18	14	C	17	2	0.00013	0
chr16:87296901:R	chr16	9E+07	9E+07	243	14	A	25	14	G	26	0	3.45E-06	0
chr16:87527804:K	chr16	9E+07	9E+07	260	10	G	9	4	T	24	24	0.00053	0.0308
chr16:87674904:R	chr16	9E+07	9E+07	235	7	A	31	31	G	4	1	0.00061	0
chr16:88268110:Y	chr16	9E+07	9E+07	110	7	C	12	12	T	5	0	0.00016	0
chr17:30159:R	chr17	29998	30315	318	26	A	27	0	G	15	6	0.00095	0
chr17:84936:R	chr17	84768	85007	240	12	A	8	0	G	22	20	7.69E-06	0
chr17:1477461:M	chr17	1E+06	1E+06	215	6	A	26	1	C	12	9	1.22E-05	0
chr17:5086283:Y	chr17	5E+06	5E+06	306	7	C	20	0	T	17	10	5.58E-05	0
chr17:6499053:R	chr17	6E+06	6E+06	121	11	A	8	5	G	22	0	0.00039	0
chr17:8943190:R	chr17	9E+06	9E+06	245	6	A	14	14	G	9	2	0.00015	0.0041
chr17:17345221:Y	chr17	2E+07	2E+07	355	6	C	12	10	T	7	0	0.00071	0
chr17:17345249:R	chr17	2E+07	2E+07	333	10	A	9	5	G	23	0	0.00063	0
chr17:20723886:S	chr17	2E+07	2E+07	368	6	C	47	38	G	24	6	7.05E-06	0
chr17:21154730:Y	chr17	2E+07	2E+07	363	10	C	9	0	T	38	24	0.0006	0
chr17:21160894:S	chr17	2E+07	2E+07	318	25	C	93	31	G	70	5	4.68E-05	0
chr17:21166983:Y	chr17	2E+07	2E+07	321	16	C	13	6	T	50	0	2.53E-05	0.0436
chr17:21270012:K	chr17	2E+07	2E+07	491	7	T	27	8	G	36	27	0.00071	0.0896
chr17:21467760:W	chr17	2E+07	2E+07	387	5	A	51	9	T	41	29	4.72E-07	0
chr17:21749692:K	chr17	2E+07	2E+07	238	11	G	33	31	T	36	15	2.74E-06	0
chr17:22336197:R	chr17	2E+07	2E+07	340	7	A	40	14	G	33	27	0.00011	0
chr17:38793439:Y	chr17	4E+07	4E+07	240	10	C	30	2	T	12	8	0.00015	0
chr17:38794088:Y	chr17	4E+07	4E+07	469	32	C	75	0	T	87	25	4.18E-08	0
chr17:38819292:S	chr17	4E+07	4E+07	319	14	C	971	830	G	42	17	9.44E-11	0
chr17:38822018:Y	chr17	4E+07	4E+07	400	26	C	706	480	T	44	1	2.11E-19	0
chr17:38822148:S	chr17	4E+07	4E+07	346	21	C	103	58	G	39	1	4.03E-10	0
chr17:38822325:Y	chr17	4E+07	4E+07	238	6	C	266	142	T	12	0	0.00015	0
chr17:42621661:S	chr17	4E+07	4E+07	312	28	C	###	1131	G	58	10	1.85E-29	0.0641
chr17:45425740:R	chr17	5E+07	5E+07	189	20	A	8	6	G	29	0	1.20E-05	0
chr17:58044277:M	chr17	6E+07	6E+07	357	5	A	33	30	C	13	3	1.57E-05	0
chr17:61707567:S	chr17	6E+07	6E+07	334	5	C	18	16	G	14	4	0.00079	0
chr17:63695187:R	chr17	6E+07	6E+07	484	6	A	46	40	G	17	6	0.00012	0.0744
chr17:71529149:K	chr17	7E+07	7E+07	205	10	G	16	15	T	5	0	0.00029	0
chr17:73982961:R	chr17	7E+07	7E+07	168	6	A	12	12	G	6	1	0.0007	0
chr17:73983274:R	chr17	7E+07	7E+07	180	8	A	9	1	G	20	16	0.00086	0
chr17:74710619:M	chr17	7E+07	7E+07	333	6	A	19	13	C	14	0	5.04E-05	0.015
chr17:75660805:R	chr17	8E+07	8E+07	293	5	A	8	1	G	9	9	0.00041	0
chr17:76577527:R	chr17	8E+07	8E+07	307	15	A	22	6	G	42	0	0.001	0
chr17:77041649:S	chr17	8E+07	8E+07	181	7	C	9	8	G	22	4	0.00048	0
chr18:12602345:Y	chr18	1E+07	1E+07	444	6	C	30	28	T	14	4	2.12E-05	0
chr18:14421379:R	chr18	1E+07	1E+07	240	27	A	35	0	G	32	19	1.44E-08	0
chr18:42590883:M	chr18	4E+07	4E+07	320	33	A	23	0	C	19	8	0.00064	0
chr18:45538343:R	chr18	5E+07	5E+07	221	6	A	10	10	G	7	1	0.00057	0
chr18:45974364:K	chr18	5E+07	5E+07	250	14	G	47	0	T	32	8	0.0004	0
chr18:46901871:Y	chr18	5E+07	5E+07	91	5	C	5	0	T	8	8	0.00078	0
chr18:50016426:W	chr18	5E+07	5E+07	308	8	A	41	39	T	15	6	2.84E-05	0.0649

chr18:53620484:K	chr18	5E+07	5E+07	284	15	G	11	7	T	29	0	1.77E-05	0.0951
chr18:56480961:R	chr18	6E+07	6E+07	525	19	A	113	41	G	94	70	3.82E-08	0.0114
chr18:72245281:R	chr18	7E+07	7E+07	305	8	A	18	16	G	8	1	0.0004	0
chr18:72947624:Y	chr18	7E+07	7E+07	361	5	C	16	5	T	10	10	0.00072	0
chr18:75373624:Y	chr18	8E+07	8E+07	163	10	C	13	13	T	5	0	0.00012	0
chr18:75774550:R	chr18	8E+07	8E+07	115	9	A	8	0	G	5	5	0.00078	0
chr19:1803078:S	chr19	2E+06	2E+06	123	14	C	22	0	G	18	15	2.03E-08	0
chr19:3320572:K	chr19	3E+06	3E+06	254	14	G	33	2	T	25	11	0.00098	0.0276
chr19:12737964:S	chr19	1E+07	1E+07	193	11	C	20	17	G	17	0	9.31E-08	0
chr19:15972787:Y	chr19	2E+07	2E+07	515	9	C	92	83	T	47	10	3.06E-16	0.0621
chr19:17458830:K	chr19	2E+07	2E+07	156	9	G	14	14	T	5	0	8.60E-05	0
chr19:18118750:Y	chr19	2E+07	2E+07	170	13	C	12	0	T	8	8	7.94E-06	0
chr19:21465098:Y	chr19	2E+07	2E+07	292	5	C	17	17	T	3	0	0.00088	0
chr19:23977338:R	chr19	2E+07	2E+07	196	11	A	24	18	G	700	193	3.00E-06	0
chr19:33023189:Y	chr19	3E+07	3E+07	499	9	C	44	32	T	37	8	5.76E-06	0.0381
chr19:37875509:M	chr19	4E+07	4E+07	163	7	A	22	0	C	15	7	0.00063	0
chr19:41335535:K	chr19	4E+07	4E+07	256	9	G	18	4	T	26	21	0.00017	0
chr19:44157852:W	chr19	4E+07	4E+07	191	13	A	15	9	T	20	1	0.00056	0
chr19:49345887:M	chr19	5E+07	5E+07	311	5	A	28	0	C	16	14	1.04E-09	0.0257
chr19:50182410:R	chr19	5E+07	5E+07	158	10	A	10	10	G	4	0	0.001	0
chr19:55104029:S	chr19	6E+07	6E+07	99	5	C	8	8	G	7	0	0.00016	0
chr19:56658743:R	chr19	6E+07	6E+07	333	14	A	18	8	G	28	0	0.00017	0.0901
chr19:58970674:K	chr19	6E+07	6E+07	338	14	G	21	10	T	16	16	0.00061	0
chr19:62042275:Y	chr19	6E+07	6E+07	342	17	C	11	2	T	20	17	0.00046	0
chr19:62043863:Y	chr19	6E+07	6E+07	201	13	C	7	6	T	11	0	0.00038	0
chr19:63247744:S	chr19	6E+07	6E+07	309	28	C	35	28	G	29	6	3.19E-06	0
chr19:63559937:K	chr19	6E+07	6E+07	294	31	G	15	13	T	81	6	6.14E-10	0
chr1:3133631:Y	chr1	3E+06	3E+06	229	12	C	10	2	T	12	12	0.00014	0
chr1:3336208:S	chr1	3E+06	3E+06	198	7	C	26	20	G	11	1	0.0002	0
chr1:5990158:Y	chr1	6E+06	6E+06	304	14	C	10	10	T	57	10	7.45E-07	0
chr1:7425882:M	chr1	7E+06	7E+06	251	6	A	21	5	C	17	17	1.04E-06	0
chr1:10633865:Y	chr1	1E+07	1E+07	141	10	C	4	0	T	25	25	4.21E-05	0
chr1:15145768:K	chr1	2E+07	2E+07	222	7	G	5	1	T	18	18	0.00056	0.0495
chr1:16264378:Y	chr1	2E+07	2E+07	340	7	C	10	1	T	17	14	0.00075	0
chr1:16731408:K	chr1	2E+07	2E+07	368	10	G	12	0	T	31	24	3.29E-06	0
chr1:16733829:W	chr1	2E+07	2E+07	278	21	A	67	32	T	34	4	0.00036	0
chr1:16734149:M	chr1	2E+07	2E+07	367	25	A	59	1	C	148	50	7.17E-08	0
chr1:16734728:S	chr1	2E+07	2E+07	301	30	C	26	3	G	90	69	2.20E-09	0
chr1:16847345:R	chr1	2E+07	2E+07	359	29	A	86	37	G	48	7	0.00097	0
chr1:16857487:R	chr1	2E+07	2E+07	264	23	A	68	48	G	34	7	2.13E-06	0
chr1:16891185:R	chr1	2E+07	2E+07	285	12	A	16	3	G	27	25	1.32E-06	0
chr1:16895697:R	chr1	2E+07	2E+07	327	22	A	4	4	G	70	3	3.04E-05	0.0153
chr1:17071953:S	chr1	2E+07	2E+07	308	20	C	66	33	G	123	14	1.23E-08	0
chr1:17072202:S	chr1	2E+07	2E+07	394	27	C	160	56	G	196	14	3.23E-11	0
chr1:17072586:S	chr1	2E+07	2E+07	305	22	C	11	10	G	231	74	0.00014	0
chr1:18551953:Y	chr1	2E+07	2E+07	205	8	C	6	0	T	15	13	0.00052	0
chr1:20422959:Y	chr1	2E+07	2E+07	325	12	C	38	26	T	32	7	0.00012	0
chr1:21635719:W	chr1	2E+07	2E+07	321	23	A	25	19	T	18	2	3.46E-05	0
chr1:21737466:Y	chr1	2E+07	2E+07	250	16	C	20	2	T	30	22	1.04E-05	0
chr1:22583138:S	chr1	2E+07	2E+07	354	10	C	22	9	G	20	19	0.00023	0
chr1:28295434:Y	chr1	3E+07	3E+07	317	11	C	17	17	T	10	0	1.19E-07	0

chr1:29801024:Y	chr1	3E+07	3E+07	325	7	C	23	18	T	15	3	0.0007	0.0954
chr1:32040924:M	chr1	3E+07	3E+07	333	6	A	24	0	C	32	16	1.55E-05	0
chr1:77209519:S	chr1	8E+07	8E+07	445	8	C	674	6	G	41	36	6.03E-49	0.0742
chr1:87715655:Y	chr1	9E+07	9E+07	733	5	C	28	26	T	21	3	1.80E-08	0.075
chr1:87716417:Y	chr1	9E+07	9E+07	302	6	C	8	8	T	7	0	0.00016	0.096
chr1:101609122:Y	chr1	1E+08	1E+08	331	5	C	26	25	T	11	4	0.00023	0
chr1:108244475:Y	chr1	1E+08	1E+08	350	5	C	7	0	T	9	8	0.0007	0
chr1:116952441:K	chr1	1E+08	1E+08	433	11	G	34	13	T	35	29	0.00019	0.0808
chr1:141559129:Y	chr1	1E+08	1E+08	539	10	C	41	14	T	82	65	2.24E-06	0
chr1:143244982:R	chr1	1E+08	1E+08	337	16	A	30	0	G	58	40	4.61E-11	0
chr1:143245287:R	chr1	1E+08	1E+08	512	22	A	181	47	G	103	54	1.05E-05	0
chr1:143803951:R	chr1	1E+08	1E+08	208	12	A	40	30	G	11	1	0.00012	0
chr1:143808451:K	chr1	1E+08	1E+08	323	6	G	17	16	T	29	6	1.24E-06	0
chr1:143808626:R	chr1	1E+08	1E+08	457	5	A	37	10	G	37	27	8.90E-05	0
chr1:147121803:R	chr1	1E+08	1E+08	244	26	A	50	30	G	107	2	1.14E-16	0.0656
chr1:150428541:W	chr1	2E+08	2E+08	208	21	A	74	7	T	15	8	0.00033	0
chr1:155431647:K	chr1	2E+08	2E+08	304	22	G	42	22	T	26	1	1.90E-05	0
chr1:155515528:R	chr1	2E+08	2E+08	304	17	A	67	56	G	56	17	1.74E-09	0.0428
chr1:178471594:R	chr1	2E+08	2E+08	274	17	A	10	6	G	39	2	0.00036	0.0912
chr1:216365899:Y	chr1	2E+08	2E+08	308	5	C	6	0	T	15	13	0.00052	0
chr1:218825974:R	chr1	2E+08	2E+08	134	8	A	6	0	G	21	17	0.00071	0
chr1:221315133:Y	chr1	2E+08	2E+08	240	6	C	6	6	T	11	1	0.00057	0
chr1:226530871:K	chr1	2E+08	2E+08	207	16	G	28	19	T	25	2	1.19E-05	0
chr1:226849866:Y	chr1	2E+08	2E+08	397	28	C	30	15	T	70	0	6.12E-10	0.0831
chr1:227528424:K	chr1	2E+08	2E+08	324	5	G	32	3	T	13	11	2.36E-06	0
chr1:240555037:M	chr1	2E+08	2E+08	269	5	A	17	2	C	39	30	1.26E-05	0.052
chr1:242554221:K	chr1	2E+08	2E+08	278	6	G	16	1	T	16	14	6.84E-06	0.0072
chr1:246167090:M	chr1	2E+08	2E+08	304	28	A	39	36	C	124	9	3.65E-24	0
chr1:246911582:Y	chr1	2E+08	2E+08	295	6	C	11	2	T	13	12	0.00052	0
chr20:4090809:R	chr20	4E+06	4E+06	216	9	A	26	3	G	9	7	0.00053	0
chr20:20785211:R	chr20	2E+07	2E+07	267	5	A	15	0	G	24	12	0.00091	0
chr20:20866701:S	chr20	2E+07	2E+07	283	7	C	10	9	G	16	3	0.00078	0
chr20:25681278:Y	chr20	3E+07	3E+07	458	5	C	66	46	T	66	15	5.37E-08	0
chr20:25696285:R	chr20	3E+07	3E+07	820	5	A	55	13	G	81	46	0.00019	0.0317
chr20:25782494:W	chr20	3E+07	3E+07	305	23	A	91	1	T	3	3	2.98E-05	0
chr20:25787016:W	chr20	3E+07	3E+07	112	10	A	5	4	T	29	0	0.00011	0
chr20:26020787:R	chr20	3E+07	3E+07	359	6	A	24	19	G	52	12	8.42E-06	0
chr20:26137108:M	chr20	3E+07	3E+07	522	68	A	159	24	C	###	2230	1.50E-07	0
chr20:48335705:S	chr20	5E+07	5E+07	188	7	C	6	0	G	12	12	5.39E-05	0
chr20:48499750:K	chr20	5E+07	5E+07	306	6	G	14	1	T	37	23	0.00044	0
chr20:51910184:Y	chr20	5E+07	5E+07	596	6	C	31	28	T	6	1	0.00071	0.0604
chr20:56849390:R	chr20	6E+07	6E+07	279	11	A	10	10	G	19	0	4.99E-08	0
chr20:56851466:Y	chr20	6E+07	6E+07	321	7	C	11	0	T	5	5	0.00023	0
chr20:56860527:Y	chr20	6E+07	6E+07	196	10	C	24	0	T	10	9	1.91E-07	0
chr20:56863963:W	chr20	6E+07	6E+07	179	10	A	4	4	T	11	0	0.00073	0
chr20:56896867:S	chr20	6E+07	6E+07	368	15	C	25	24	G	19	0	1.42E-11	0
chr20:59337797:Y	chr20	6E+07	6E+07	249	6	C	8	2	T	19	18	0.00061	0.0643
chr20:59948670:Y	chr20	6E+07	6E+07	278	11	C	32	28	T	18	7	0.0008	0.018
chr20:60486775:M	chr20	6E+07	6E+07	304	15	A	22	1	C	12	10	5.12E-06	0.0132
chr20:60990433:R	chr20	6E+07	6E+07	253	8	A	7	1	G	9	9	0.00087	0
chr20:62329137:S	chr20	6E+07	6E+07	311	14	C	28	26	G	24	7	1.85E-06	0

chr21:13666818:Y	chr21	1E+07	1E+07	202	9	C	9	2	T	19	17	0.00092	0.005
chr21:14274743:Y	chr21	1E+07	1E+07	287	19	C	8	4	T	36	0	0.00052	0
chr21:14370815:S	chr21	1E+07	1E+07	169	8	C	14	13	G	60	21	0.00014	0
chr21:14378131:K	chr21	1E+07	1E+07	186	9	G	45	6	T	30	28	1.43E-12	0
chr21:32167598:S	chr21	3E+07	3E+07	309	38	C	16	5	G	57	0	0.00029	0
chr21:36221516:Y	chr21	4E+07	4E+07	252	5	C	21	20	T	8	2	0.00038	0
chr21:38551067:R	chr21	4E+07	4E+07	259	8	A	25	8	G	23	20	0.00014	0
chr21:42192603:M	chr21	4E+07	4E+07	368	10	A	34	10	C	56	2	0.0008	0.0978
chr21:42765326:R	chr21	4E+07	4E+07	200	6	A	11	11	G	4	0	0.00073	0
chr21:43446899:R	chr21	4E+07	4E+07	298	23	A	38	34	G	31	11	3.09E-06	0
chr21:44530416:Y	chr21	4E+07	4E+07	187	17	C	13	3	T	10	10	0.00036	0
chr21:45271289:S	chr21	5E+07	5E+07	228	9	C	18	17	G	6	1	0.00081	0
chr21:45468901:R	chr21	5E+07	5E+07	264	11	A	8	0	G	40	29	0.0002	0
chr21:46301154:Y	chr21	5E+07	5E+07	315	15	C	8	0	T	15	13	9.18E-05	0
chr22:19109604:K	chr22	2E+07	2E+07	157	18	G	17	0	T	18	11	0.00011	0
chr22:20622217:Y	chr22	2E+07	2E+07	290	14	C	22	17	T	9	0	9.93E-05	0
chr22:22464394:Y	chr22	2E+07	2E+07	261	6	C	8	7	T	9	0	0.00041	0
chr22:27405694:S	chr22	3E+07	3E+07	219	38	C	61	8	G	18	12	2.21E-05	0.0365
chr22:28611138:R	chr22	3E+07	3E+07	654	5	A	24	21	G	14	4	0.00039	0
chr22:35136197:M	chr22	4E+07	4E+07	228	17	A	64	3	C	54	18	5.80E-05	0
chr22:44904458:Y	chr22	4E+07	4E+07	153	8	C	13	0	T	21	20	1.51E-08	0
chr22:45238564:R	chr22	5E+07	5E+07	211	18	A	38	36	G	8	0	1.72E-07	0
chr22:45375193:R	chr22	5E+07	5E+07	204	6	A	5	0	G	9	9	0.0005	0
chr22:45576719:R	chr22	5E+07	5E+07	286	10	A	9	3	G	21	20	0.00088	0
chr22:46166687:R	chr22	5E+07	5E+07	157	7	A	11	11	G	11	1	1.70E-05	0.0127
chr22:46388819:Y	chr22	5E+07	5E+07	237	8	C	17	15	T	21	6	0.0003	0
chr22:46984028:Y	chr22	5E+07	5E+07	195	12	C	5	0	T	26	22	0.00074	0
chr22:47029127:Y	chr22	5E+07	5E+07	343	8	C	29	7	T	30	23	7.64E-05	0
chr22:47435334:R	chr22	5E+07	5E+07	98	6	A	11	11	G	6	0	8.08E-05	0
chr22:48261960:S	chr22	5E+07	5E+07	264	15	C	18	17	G	31	11	5.62E-05	0
chr22:48380296:R	chr22	5E+07	5E+07	273	12	A	5	1	G	38	38	4.05E-05	0
chr22:48412318:R	chr22	5E+07	5E+07	207	14	A	42	10	G	14	14	3.38E-07	0
chr22:48436472:R	chr22	5E+07	5E+07	288	10	A	14	11	G	10	0	0.00015	0
chr22:48815745:R	chr22	5E+07	5E+07	449	12	A	3	3	G	31	0	0.00017	0.0846
chr22:49244892:R	chr22	5E+07	5E+07	112	12	A	9	8	G	9	0	0.00021	0
chr2:626657:K	chr2	626525	626780	256	31	G	52	8	T	25	14	0.0004	0
chr2:5687332:K	chr2	6E+06	6E+06	362	10	G	64	18	T	16	13	0.00028	0.0718
chr2:8389446:S	chr2	8E+06	8E+06	280	9	C	23	9	G	11	11	0.00066	0
chr2:8484336:R	chr2	8E+06	8E+06	331	8	A	20	17	G	21	4	3.21E-05	0
chr2:8738035:M	chr2	9E+06	9E+06	316	6	A	13	5	C	19	18	0.0009	0
chr2:10299466:R	chr2	1E+07	1E+07	162	7	A	19	1	G	26	22	7.33E-08	0
chr2:10532797:R	chr2	1E+07	1E+07	315	13	A	13	0	G	25	22	1.03E-07	0
chr2:11155600:Y	chr2	1E+07	1E+07	320	7	C	8	8	T	24	7	0.00061	0
chr2:13643215:W	chr2	1E+07	1E+07	315	5	A	29	25	T	34	10	8.82E-06	0
chr2:24950576:S	chr2	2E+07	2E+07	337	9	C	6	0	G	38	37	9.92E-07	0
chr2:28621854:R	chr2	3E+07	3E+07	248	11	A	10	0	G	7	7	5.14E-05	0
chr2:37527929:K	chr2	4E+07	4E+07	184	5	G	33	3	T	5	5	0.00011	0
chr2:37819151:Y	chr2	4E+07	4E+07	766	5	C	35	24	T	31	3	9.77E-07	0.0013
chr2:37829156:M	chr2	4E+07	4E+07	685	5	A	13	1	C	48	39	1.82E-06	0.0934
chr2:37854744:M	chr2	4E+07	4E+07	1134	6	A	61	49	C	22	4	3.85E-07	0.0608
chr2:62334962:R	chr2	6E+07	6E+07	259	8	A	9	9	G	8	1	0.00041	0

chr2:63505500:R	chr2	6E+07	6E+07	233	9	A	6	0	G	23	19	0.00044	0
chr2:71059484:R	chr2	7E+07	7E+07	273	18	A	36	0	G	29	13	4.13E-06	0.0073
chr2:75034905:Y	chr2	8E+07	8E+07	253	5	C	40	24	T	21	3	0.00092	0
chr2:81747216:K	chr2	8E+07	8E+07	366	8	G	131	20	T	16	15	3.77E-10	0.0628
chr2:85007336:M	chr2	9E+07	9E+07	306	15	A	19	11	C	36	1	6.32E-06	0.0948
chr2:90998991:Y	chr2	9E+07	9E+07	249	25	C	9	7	T	113	2	1.88E-08	0.0643
chr2:90999034:R	chr2	9E+07	9E+07	239	22	A	24	3	G	56	31	0.00043	0.0669
chr2:94890883:S	chr2	9E+07	9E+07	474	34	C	85	16	G	171	111	1.69E-12	0
chr2:94899427:R	chr2	9E+07	9E+07	432	10	A	36	11	G	27	22	9.73E-05	0
chr2:94903947:M	chr2	9E+07	9E+07	278	13	A	62	40	C	42	5	7.19E-08	0
chr2:94910982:W	chr2	9E+07	9E+07	487	5	A	29	19	T	33	6	0.00023	0.0575
chr2:94915484:K	chr2	9E+07	9E+07	443	6	G	170	54	T	41	32	9.15E-08	0.079
chr2:95971190:S	chr2	1E+08	1E+08	448	5	C	105	70	G	178	30	3.56E-17	0
chr2:97274706:R	chr2	1E+08	1E+08	375	6	A	22	19	G	106	12	7.09E-12	0
chr2:100951327:Y	chr2	1E+08	1E+08	106	8	C	12	11	T	5	0	0.00097	0
chr2:104642363:S	chr2	1E+08	1E+08	238	18	C	20	16	G	35	0	1.63E-10	0
chr2:109113174:W	chr2	1E+08	1E+08	184	13	A	20	0	T	10	10	3.33E-08	0
chr2:129261990:R	chr2	1E+08	1E+08	244	6	A	17	14	G	10	1	0.00075	0
chr2:130381133:M	chr2	1E+08	1E+08	315	8	A	15	2	C	36	24	0.00065	0
chr2:130480085:S	chr2	1E+08	1E+08	243	28	C	50	0	G	30	8	0.0002	0
chr2:132727352:M	chr2	1E+08	1E+08	329	12	A	33	28	C	257	94	1.13E-07	0
chr2:132728084:R	chr2	1E+08	1E+08	364	16	A	96	28	G	25	21	1.11E-06	0
chr2:132730409:M	chr2	1E+08	1E+08	220	23	A	17	0	C	29	14	0.00052	0
chr2:132731578:R	chr2	1E+08	1E+08	320	29	A	29	0	G	617	266	1.72E-07	0
chr2:132736986:M	chr2	1E+08	1E+08	518	8	A	110	44	C	###	1947	1.57E-20	0
chr2:132742036:M	chr2	1E+08	1E+08	478	24	A	63	7	C	###	888	3.64E-08	0
chr2:132778841:S	chr2	1E+08	1E+08	786	25	C	95	49	G	177	36	2.46E-07	0
chr2:193255752:M	chr2	2E+08	2E+08	127	9	A	20	19	C	6	0	3.04E-05	0.0394
chr2:206824960:M	chr2	2E+08	2E+08	383	7	A	29	4	C	21	17	2.25E-06	0
chr2:218895611:Y	chr2	2E+08	2E+08	169	8	C	14	14	T	10	3	0.00035	0
chr2:231763397:W	chr2	2E+08	2E+08	289	13	A	46	38	T	21	7	0.00015	0
chr2:235064401:S	chr2	2E+08	2E+08	282	10	C	30	9	G	49	0	6.95E-05	0
chr2:236284095:R	chr2	2E+08	2E+08	256	11	A	4	0	G	12	12	0.00055	0
chr2:238479562:M	chr2	2E+08	2E+08	286	9	A	19	16	C	28	8	0.00028	0.0315
chr2:239649115:Y	chr2	2E+08	2E+08	293	9	C	29	22	T	15	3	0.00092	0
chr2:239932430:Y	chr2	2E+08	2E+08	261	6	C	16	16	T	9	2	7.49E-05	0
chr2:240520543:Y	chr2	2E+08	2E+08	205	8	C	11	2	T	18	17	5.00E-05	0.0195
chr2:240756355:R	chr2	2E+08	2E+08	185	11	A	14	5	G	15	15	0.0002	0
chr2:241356473:Y	chr2	2E+08	2E+08	125	6	C	8	8	T	5	0	0.00078	0
chr2:241699664:M	chr2	2E+08	2E+08	285	7	A	10	8	C	9	0	0.00071	0
chr2:241706887:R	chr2	2E+08	2E+08	231	9	A	43	41	G	4	0	8.41E-05	0
chr2:242083482:K	chr2	2E+08	2E+08	244	9	G	13	0	T	6	6	3.69E-05	0
chr2:242128954:S	chr2	2E+08	2E+08	186	10	C	10	0	G	7	7	5.14E-05	0
chr3:13220673:S	chr3	1E+07	1E+07	238	20	C	39	3	G	12	9	1.30E-05	0
chr3:14579331:Y	chr3	1E+07	1E+07	124	6	C	13	12	T	6	0	0.00026	0
chr3:16221473:Y	chr3	2E+07	2E+07	121	8	C	8	0	T	5	5	0.00078	0
chr3:16271672:S	chr3	2E+07	2E+07	351	5	C	9	9	G	10	1	0.00012	0
chr3:58547617:S	chr3	6E+07	6E+07	232	21	C	53	6	G	26	13	0.00044	0.0129
chr3:73242457:S	chr3	7E+07	7E+07	558	30	C	203	126	G	###	217	1.29E-74	0.0215
chr3:75766230:R	chr3	8E+07	8E+07	682	5	A	39	7	G	11	9	0.00018	0.022
chr3:75774842:W	chr3	8E+07	8E+07	361	6	A	75	29	T	190	30	0.00013	0

chr3:75775304:M	chr3	8E+07	8E+07	456	9	A	243	103	C	54	8	9.06E-05	0
chr3:75790617:R	chr3	8E+07	8E+07	328	14	A	68	9	G	54	25	8.24E-05	0
chr3:75801884:Y	chr3	8E+07	8E+07	530	28	C	46	5	T	434	171	7.60E-05	0.0981
chr3:75804145:Y	chr3	8E+07	8E+07	276	18	C	23	15	T	22	1	2.32E-05	0.0399
chr3:75804207:R	chr3	8E+07	8E+07	176	11	A	11	0	G	28	20	4.51E-05	0
chr3:75804262:M	chr3	8E+07	8E+07	204	15	A	38	6	C	13	9	0.00067	0
chr3:75804456:R	chr3	8E+07	8E+07	225	16	A	46	29	G	32	0	1.10E-09	0
chr3:75876258:R	chr3	8E+07	8E+07	609	5	A	169	58	G	52	48	2.39E-14	0
chr3:126143550:W	chr3	1E+08	1E+08	350	12	A	22	21	T	25	8	1.04E-05	0
chr3:127191740:K	chr3	1E+08	1E+08	329	14	G	75	9	T	27	13	0.00024	0
chr3:127573913:R	chr3	1E+08	1E+08	297	5	A	10	10	G	5	0	0.00033	0
chr3:128423243:R	chr3	1E+08	1E+08	208	6	A	7	1	G	13	13	0.00018	0
chr3:140145697:R	chr3	1E+08	1E+08	213	5	A	25	10	G	37	1	0.00025	0.0657
chr3:195404878:M	chr3	2E+08	2E+08	130	15	A	9	5	C	27	0	0.00033	0
chr3:196974738:S	chr3	2E+08	2E+08	276	24	C	35	28	G	13	0	4.02E-07	0
chr3:197019179:M	chr3	2E+08	2E+08	276	10	A	32	25	C	20	3	1.08E-05	0
chr4:1210862:Y	chr4	1E+06	1E+06	259	8	C	6	0	T	9	9	0.0002	0.0116
chr4:2273521:S	chr4	2E+06	2E+06	149	8	C	24	20	G	6	0	0.00035	0
chr4:2388243:S	chr4	2E+06	2E+06	295	19	C	65	19	G	44	0	1.73E-05	0
chr4:3012982:K	chr4	3E+06	3E+06	212	15	G	14	13	T	20	4	5.91E-05	0
chr4:3598518:R	chr4	4E+06	4E+06	965	5	A	41	14	G	44	34	7.66E-05	0
chr4:3604962:S	chr4	4E+06	4E+06	448	9	C	21	8	G	25	22	0.00058	0.0335
chr4:4278909:R	chr4	4E+06	4E+06	448	23	A	97	9	G	219	64	7.45E-05	0.0558
chr4:4279357:K	chr4	4E+06	4E+06	294	34	G	46	7	T	88	41	0.00029	0
chr4:7430406:M	chr4	7E+06	7E+06	331	8	A	21	11	C	16	0	0.00061	0
chr4:12251123:K	chr4	1E+07	1E+07	359	9	G	94	5	T	17	15	1.40E-12	0
chr4:12251243:Y	chr4	1E+07	1E+07	305	8	C	281	0	T	13	10	2.51E-16	0
chr4:12251314:R	chr4	1E+07	1E+07	250	7	A	13	11	G	558	6	1.98E-17	0
chr4:17047695:Y	chr4	2E+07	2E+07	241	13	C	11	0	T	11	11	2.84E-06	0
chr4:33536356:M	chr4	3E+07	3E+07	317	5	A	15	2	C	38	34	2.44E-07	0
chr4:40913388:Y	chr4	4E+07	4E+07	196	19	C	9	5	T	54	0	1.79E-05	0
chr4:88411275:Y	chr4	9E+07	9E+07	253	7	C	9	8	T	8	0	0.00041	0
chr4:106772696:R	chr4	1E+08	1E+08	481	6	A	10	10	G	19	4	5.00E-05	0
chr4:113705494:M	chr4	1E+08	1E+08	280	12	A	29	28	C	14	1	5.19E-09	0
chr4:152549944:S	chr4	2E+08	2E+08	256	17	C	7	5	G	29	0	5.57E-05	0.0391
chr4:154932647:K	chr4	2E+08	2E+08	352	12	G	15	9	T	14	0	0.0007	0
chr4:170006774:R	chr4	2E+08	2E+08	271	5	A	19	13	G	9	0	0.00083	0
chr4:178629391:Y	chr4	2E+08	2E+08	188	14	C	12	2	T	30	27	1.07E-05	0.0798
chr4:184048481:R	chr4	2E+08	2E+08	301	5	A	19	9	G	23	23	6.28E-05	0
chr4:185235203:W	chr4	2E+08	2E+08	337	5	A	14	0	T	17	12	4.45E-05	0
chr4:185448266:M	chr4	2E+08	2E+08	295	7	A	23	21	C	18	6	0.00016	0
chr4:190437653:Y	chr4	2E+08	2E+08	392	11	C	32	19	T	137	28	3.60E-05	0.0765
chr4:190847738:R	chr4	2E+08	2E+08	516	7	A	76	22	G	34	28	2.53E-07	0
chr4:191098899:R	chr4	2E+08	2E+08	418	36	A	104	4	G	63	22	1.33E-07	0
chr4:191138119:R	chr4	2E+08	2E+08	296	5	A	20	3	G	19	14	0.00033	0
chr4:191146092:M	chr4	2E+08	2E+08	826	6	A	99	23	C	59	35	7.63E-06	0.0569
chr4:191173084:S	chr4	2E+08	2E+08	340	37	C	200	107	G	104	20	5.40E-09	0.0471
chr4:191177438:R	chr4	2E+08	2E+08	340	32	A	30	0	G	87	33	1.00E-05	0.0088
chr5:1140868:Y	chr5	1E+06	1E+06	213	11	C	6	0	T	13	13	3.69E-05	0
chr5:1647879:S	chr5	2E+06	2E+06	318	30	C	36	0	G	31	13	8.13E-06	0
chr5:1940200:S	chr5	2E+06	2E+06	307	49	C	32	0	G	50	17	0.00012	0

chr5:2002044:M	chr5	2E+06	2E+06	107	9	A	4	0	C	13	13	0.00042	0
chr5:7342949:S	chr5	7E+06	7E+06	189	18	C	36	35	G	5	0	8.01E-06	0
chr5:7902989:S	chr5	8E+06	8E+06	319	18	C	56	16	G	45	0	3.85E-05	0
chr5:9752519:Y	chr5	1E+07	1E+07	257	6	C	30	26	T	27	10	0.00013	0
chr5:74309014:W	chr5	7E+07	7E+07	358	6	A	20	3	T	21	16	0.00013	0
chr5:75612211:S	chr5	8E+07	8E+07	179	9	C	11	11	G	6	1	0.00097	0
chr5:99415346:R	chr5	1E+08	1E+08	347	6	A	11	11	G	112	4	8.86E-13	0.0807
chr5:99416069:R	chr5	1E+08	1E+08	446	9	A	20	13	G	718	38	9.35E-12	0
chr5:99416970:R	chr5	1E+08	1E+08	354	9	A	7	5	G	232	22	0.00023	0.096
chr5:99417401:S	chr5	1E+08	1E+08	352	9	C	16	11	G	168	22	2.99E-06	0
chr5:118719592:M	chr5	1E+08	1E+08	185	16	A	47	0	C	19	11	7.04E-08	0
chr5:134287366:R	chr5	1E+08	1E+08	554	19	A	###	56	G	110	83	3.55E-87	0.0975
chr5:134287698:Y	chr5	1E+08	1E+08	257	6	C	8	5	T	114	0	2.70E-07	0
chr5:134288288:R	chr5	1E+08	1E+08	374	7	A	28	19	G	208	9	6.94E-15	0
chr5:134288729:R	chr5	1E+08	1E+08	352	11	A	403	7	G	44	32	3.37E-32	0
chr5:134288945:R	chr5	1E+08	1E+08	383	10	A	52	38	G	400	2	4.25E-41	0
chr5:134289274:R	chr5	1E+08	1E+08	355	5	A	230	3	G	13	8	7.47E-10	0
chr5:134290558:R	chr5	1E+08	1E+08	436	12	A	782	8	G	66	38	4.32E-40	0
chr5:134290858:R	chr5	1E+08	1E+08	437	12	A	39	29	G	567	6	3.31E-35	0
chr5:134291008:Y	chr5	1E+08	1E+08	534	11	C	805	9	T	41	36	2.05E-49	0
chr5:134291300:R	chr5	1E+08	1E+08	383	8	A	20	15	G	363	14	3.09E-15	0
chr5:134291910:R	chr5	1E+08	1E+08	420	7	A	33	28	G	422	2	2.70E-37	0
chr5:135442963:R	chr5	1E+08	1E+08	314	16	A	22	5	G	22	21	5.77E-07	0
chr5:135443199:M	chr5	1E+08	1E+08	285	11	A	11	9	C	13	1	0.00052	0
chr5:135443625:R	chr5	1E+08	1E+08	366	14	A	62	2	G	41	35	6.47E-19	0
chr5:162536578:Y	chr5	2E+08	2E+08	268	8	C	12	2	T	9	9	0.00022	0.0224
chr5:178383601:Y	chr5	2E+08	2E+08	586	34	C	75	10	T	71	31	4.74E-05	0.087
chr5:178919042:R	chr5	2E+08	2E+08	273	13	A	14	7	G	25	0	0.00022	0
chr5:178919238:M	chr5	2E+08	2E+08	266	16	A	21	0	C	10	9	4.96E-07	0
chr5:179978950:S	chr5	2E+08	2E+08	254	16	C	10	1	G	12	10	0.00097	0
chr6:236744:S	chr6	236624	236896	273	9	C	8	7	G	40	4	3.28E-05	0
chr6:238274:M	chr6	238142	238442	301	10	A	15	9	C	48	0	2.11E-07	0
chr6:261343:R	chr6	261202	261511	310	7	A	6	0	G	35	32	1.87E-05	0
chr6:6559333:M	chr6	7E+06	7E+06	317	8	A	10	10	C	9	2	0.00071	0
chr6:15205442:Y	chr6	2E+07	2E+07	278	5	C	13	11	T	12	1	0.00021	0
chr6:25136045:Y	chr6	3E+07	3E+07	131	7	C	14	2	T	9	9	6.73E-05	0
chr6:26413622:R	chr6	3E+07	3E+07	216	6	A	11	0	G	6	5	0.00097	0
chr6:27306236:Y	chr6	3E+07	3E+07	329	15	C	30	10	T	29	0	0.0008	0
chr6:28709775:R	chr6	3E+07	3E+07	264	9	A	15	3	G	20	16	0.00063	0
chr6:29756098:R	chr6	3E+07	3E+07	256	7	A	10	9	G	7	0	0.00041	0
chr6:29756543:Y	chr6	3E+07	3E+07	279	11	C	22	17	T	11	0	2.26E-05	0
chr6:29904285:R	chr6	3E+07	3E+07	258	21	A	40	3	G	35	15	0.0004	0
chr6:30001557:R	chr6	3E+07	3E+07	618	16	A	73	19	G	50	39	1.58E-08	0.0615
chr6:30019298:K	chr6	3E+07	3E+07	165	10	G	21	0	T	9	7	1.77E-05	0.0182
chr6:30052347:Y	chr6	3E+07	3E+07	224	5	C	3	3	T	20	0	0.00056	0
chr6:30147077:Y	chr6	3E+07	3E+07	174	17	C	19	14	T	28	4	5.78E-05	0
chr6:31663371:M	chr6	3E+07	3E+07	320	7	A	7	7	C	12	2	0.00071	0
chr6:32651040:S	chr6	3E+07	3E+07	342	6	C	17	4	G	50	39	9.89E-05	0
chr6:32836871:R	chr6	3E+07	3E+07	296	9	A	41	36	G	8	0	2.85E-06	0
chr6:32836920:R	chr6	3E+07	3E+07	210	8	A	5	0	G	23	20	0.00057	0
chr6:32836924:Y	chr6	3E+07	3E+07	237	11	C	25	22	T	5	0	0.00039	0

chr6:36845477:R	chr6	4E+07	4E+07	183	12	A	29	2	G	8	7	2.63E-05	0
chr6:37591691:Y	chr6	4E+07	4E+07	246	7	C	30	5	T	14	12	1.95E-05	0
chr6:42152923:R	chr6	4E+07	4E+07	217	9	A	6	1	G	15	15	0.00029	0
chr6:44066125:Y	chr6	4E+07	4E+07	266	6	C	7	0	T	18	14	0.00069	0
chr6:100173274:R	chr6	1E+08	1E+08	236	18	A	24	15	G	14	0	9.67E-05	0
chr6:136652565:M	chr6	1E+08	1E+08	334	29	A	35	28	C	52	0	1.35E-16	0
chr6:136652610:Y	chr6	1E+08	1E+08	225	23	C	63	0	T	11	11	2.39E-13	0
chr6:150112222:S	chr6	2E+08	2E+08	315	30	C	43	15	G	61	0	3.18E-07	0
chr6:150345094:Y	chr6	2E+08	2E+08	476	5	C	20	14	T	24	3	0.00014	0.0735
chr6:158790069:R	chr6	2E+08	2E+08	294	13	A	20	10	G	18	18	0.00048	0
chr6:158985741:S	chr6	2E+08	2E+08	166	18	C	18	6	G	44	0	0.0003	0
chr6:160605062:Y	chr6	2E+08	2E+08	230	5	C	17	17	T	13	5	0.00022	0
chr6:161186012:K	chr6	2E+08	2E+08	298	5	G	70	54	T	9	0	9.93E-06	0.0034
chr6:163959633:R	chr6	2E+08	2E+08	248	8	A	13	13	G	14	4	0.00015	0
chr6:166780986:R	chr6	2E+08	2E+08	197	5	A	23	21	G	8	2	0.00092	0
chr6:167427499:R	chr6	2E+08	2E+08	86	6	A	6	0	G	11	10	0.00057	0
chr6:170255518:Y	chr6	2E+08	2E+08	316	12	C	7	2	T	17	17	0.00049	0
chr7:281549:Y	chr7	281488	281661	174	12	C	12	12	T	5	0	0.00016	0
chr7:576303:R	chr7	576213	576385	173	11	A	20	19	G	4	0	0.00047	0
chr7:592504:Y	chr7	592376	592639	264	7	C	6	1	T	13	13	0.00052	0
chr7:1589301:S	chr7	2E+06	2E+06	317	7	C	20	19	G	29	13	0.00024	0
chr7:2609626:R	chr7	3E+06	3E+06	267	9	A	25	23	G	6	1	0.00069	0
chr7:19122981:S	chr7	2E+07	2E+07	330	36	C	61	11	G	114	2	0.0002	0.1
chr7:27258445:W	chr7	3E+07	3E+07	202	13	A	22	0	T	11	10	1.19E-07	0
chr7:32324582:Y	chr7	3E+07	3E+07	248	11	C	15	10	T	13	0	0.00025	0
chr7:35268278:S	chr7	4E+07	4E+07	245	18	C	48	17	G	30	1	0.00078	0
chr7:48934541:Y	chr7	5E+07	5E+07	197	13	C	16	1	T	31	26	2.82E-07	0
chr7:53222458:Y	chr7	5E+07	5E+07	252	15	C	20	20	T	12	4	4.71E-05	0
chr7:53222570:S	chr7	5E+07	5E+07	277	17	C	19	7	G	48	41	0.00017	0
chr7:55379549:Y	chr7	6E+07	6E+07	193	13	C	19	19	T	14	6	0.00022	0
chr7:56054813:K	chr7	6E+07	6E+07	424	6	G	14	4	T	25	24	1.51E-05	0
chr7:57664941:Y	chr7	6E+07	6E+07	420	5	C	42	11	T	21	16	0.00031	0
chr7:57718828:M	chr7	6E+07	6E+07	341	13	A	44	35	C	17	5	0.00056	0.0587
chr7:63135705:S	chr7	6E+07	6E+07	343	18	C	42	31	G	28	5	6.36E-06	0.0758
chr7:65607963:M	chr7	7E+07	7E+07	250	13	A	38	18	C	46	44	4.69E-07	0
chr7:100395430:M	chr7	1E+08	1E+08	374	21	A	123	32	C	45	1	0.00029	0
chr7:102874071:K	chr7	1E+08	1E+08	280	19	G	50	3	T	5	5	1.61E-05	0
chr7:105383950:R	chr7	1E+08	1E+08	142	10	A	6	0	G	18	17	5.20E-05	0.0986
chr7:134513864:Y	chr7	1E+08	1E+08	182	8	C	8	8	T	5	0	0.00078	0
chr7:135274877:S	chr7	1E+08	1E+08	277	5	C	8	7	G	20	0	6.76E-06	0.0686
chr7:139772308:R	chr7	1E+08	1E+08	265	10	A	8	0	G	15	14	1.84E-05	0
chr7:150081412:R	chr7	2E+08	2E+08	281	5	A	19	17	G	11	2	0.00018	0
chr7:153522774:Y	chr7	2E+08	2E+08	312	7	C	19	7	T	24	21	0.00098	0.0128
chr7:156907915:Y	chr7	2E+08	2E+08	188	10	C	7	7	T	11	1	0.00025	0
chr7:157996235:R	chr7	2E+08	2E+08	282	7	A	18	7	G	26	24	0.00021	0
chr7:158482807:M	chr7	2E+08	2E+08	319	20	A	22	1	C	30	25	6.43E-09	0
chr7:158603416:Y	chr7	2E+08	2E+08	331	8	C	5	0	T	8	8	0.00078	0
chr8:169693:K	chr8	169644	169776	133	14	G	15	15	T	8	0	2.04E-06	0
chr8:1141599:S	chr8	1E+06	1E+06	306	8	C	13	13	G	15	5	0.00025	0
chr8:1630014:K	chr8	2E+06	2E+06	179	10	G	15	15	T	7	1	9.38E-05	0
chr8:1637157:R	chr8	2E+06	2E+06	242	21	A	31	0	G	3	3	0.00017	0

chr8:1641097:R	chr8	2E+06	2E+06	331	12	A	14	7	G	20	20	0.00064	0
chr8:2053369:M	chr8	2E+06	2E+06	286	7	A	15	4	C	14	13	0.00048	0
chr8:2113807:W	chr8	2E+06	2E+06	223	9	A	20	8	T	13	13	0.00051	0
chr8:2872872:R	chr8	3E+06	3E+06	284	8	A	5	0	G	8	8	0.00078	0
chr8:5140329:Y	chr8	5E+06	5E+06	179	5	C	15	1	T	17	12	0.0003	0
chr8:6779011:R	chr8	7E+06	7E+06	216	8	A	21	9	G	25	23	0.00041	0
chr8:11743990:K	chr8	1E+07	1E+07	186	11	G	26	26	T	14	5	7.32E-06	0
chr8:17396802:K	chr8	2E+07	2E+07	297	6	G	48	20	T	29	26	3.02E-05	0
chr8:37111840:R	chr8	4E+07	4E+07	240	5	A	7	7	G	6	0	0.00058	0
chr8:39392227:W	chr8	4E+07	4E+07	409	6	A	37	4	T	32	18	7.19E-05	0
chr8:49247350:R	chr8	5E+07	5E+07	347	11	A	42	1	G	7	4	0.00078	0
chr8:55541766:S	chr8	6E+07	6E+07	199	19	C	39	0	G	27	9	0.00013	0
chr8:101246933:M	chr8	1E+08	1E+08	302	12	A	46	37	C	34	9	2.54E-06	0
chr8:128958553:M	chr8	1E+08	1E+08	166	7	A	17	17	C	19	9	0.00044	0
chr8:142230214:M	chr8	1E+08	1E+08	283	16	A	32	16	C	20	20	9.70E-05	0
chr8:143654275:R	chr8	1E+08	1E+08	336	6	A	5	4	G	19	0	0.00047	0
chr9:31201304:Y	chr9	3E+07	3E+07	186	7	C	9	8	T	14	0	1.84E-05	0
chr9:33513364:Y	chr9	3E+07	3E+07	429	7	C	12	1	T	20	14	0.00095	0.014
chr9:34642330:R	chr9	3E+07	3E+07	315	12	A	17	16	G	17	5	0.00012	0.0254
chr9:38516765:S	chr9	4E+07	4E+07	191	27	C	30	2	G	9	8	6.21E-06	0
chr9:66194664:Y	chr9	7E+07	7E+07	333	13	C	131	63	T	46	5	3.39E-06	0
chr9:66195700:Y	chr9	7E+07	7E+07	310	25	C	86	59	T	85	16	3.85E-11	0
chr9:66195881:S	chr9	7E+07	7E+07	429	32	C	116	18	G	238	108	1.76E-08	0
chr9:66206159:S	chr9	7E+07	7E+07	365	6	C	82	36	G	11	11	0.0005	0.0274
chr9:67903287:W	chr9	7E+07	7E+07	349	12	A	19	0	T	28	13	0.00048	0
chr9:67945026:M	chr9	7E+07	7E+07	331	17	A	23	1	C	63	28	0.00027	0
chr9:67945153:R	chr9	7E+07	7E+07	318	12	A	26	15	G	22	0	7.22E-06	0.022
chr9:67945381:R	chr9	7E+07	7E+07	340	21	A	78	40	G	108	16	1.24E-07	0.0206
chr9:67966129:M	chr9	7E+07	7E+07	742	7	A	200	127	C	58	11	1.70E-09	0
chr9:69118593:W	chr9	7E+07	7E+07	332	5	A	39	24	T	23	3	0.0002	0.0512
chr9:70112025:Y	chr9	7E+07	7E+07	261	21	C	49	2	T	42	35	7.52E-16	0
chr9:70112717:Y	chr9	7E+07	7E+07	377	10	C	20	3	T	8	7	0.00071	0.0398
chr9:93014234:R	chr9	9E+07	9E+07	346	5	A	9	2	G	16	16	7.49E-05	0
chr9:94715557:M	chr9	9E+07	9E+07	348	18	A	29	12	C	29	26	0.00012	0
chr9:95469224:R	chr9	1E+08	1E+08	346	13	A	49	44	G	11	3	6.32E-05	0.0347
chr9:97278179:R	chr9	1E+08	1E+08	326	10	A	11	4	G	17	17	0.00028	0
chr9:122118106:M	chr9	1E+08	1E+08	214	6	A	8	0	C	25	18	0.00046	0
chr9:128224283:R	chr9	1E+08	1E+08	208	7	A	13	13	G	13	2	1.01E-05	0
chr9:129266518:W	chr9	1E+08	1E+08	251	8	A	12	12	T	4	0	0.00055	0
chr9:129871150:R	chr9	1E+08	1E+08	227	10	A	22	0	G	4	4	6.69E-05	0
chr9:135074989:Y	chr9	1E+08	1E+08	267	12	C	9	1	T	18	16	0.00017	0
chr9:136241230:M	chr9	1E+08	1E+08	271	5	A	10	2	C	9	9	0.00071	0
chr9:137423212:S	chr9	1E+08	1E+08	209	11	C	17	17	G	11	4	0.00028	0
chr9:138641818:Y	chr9	1E+08	1E+08	185	7	C	21	18	T	5	0	0.00085	0
chr9:138835832:S	chr9	1E+08	1E+08	206	30	C	11	9	G	40	6	6.85E-05	0