

Figures

Figure S1

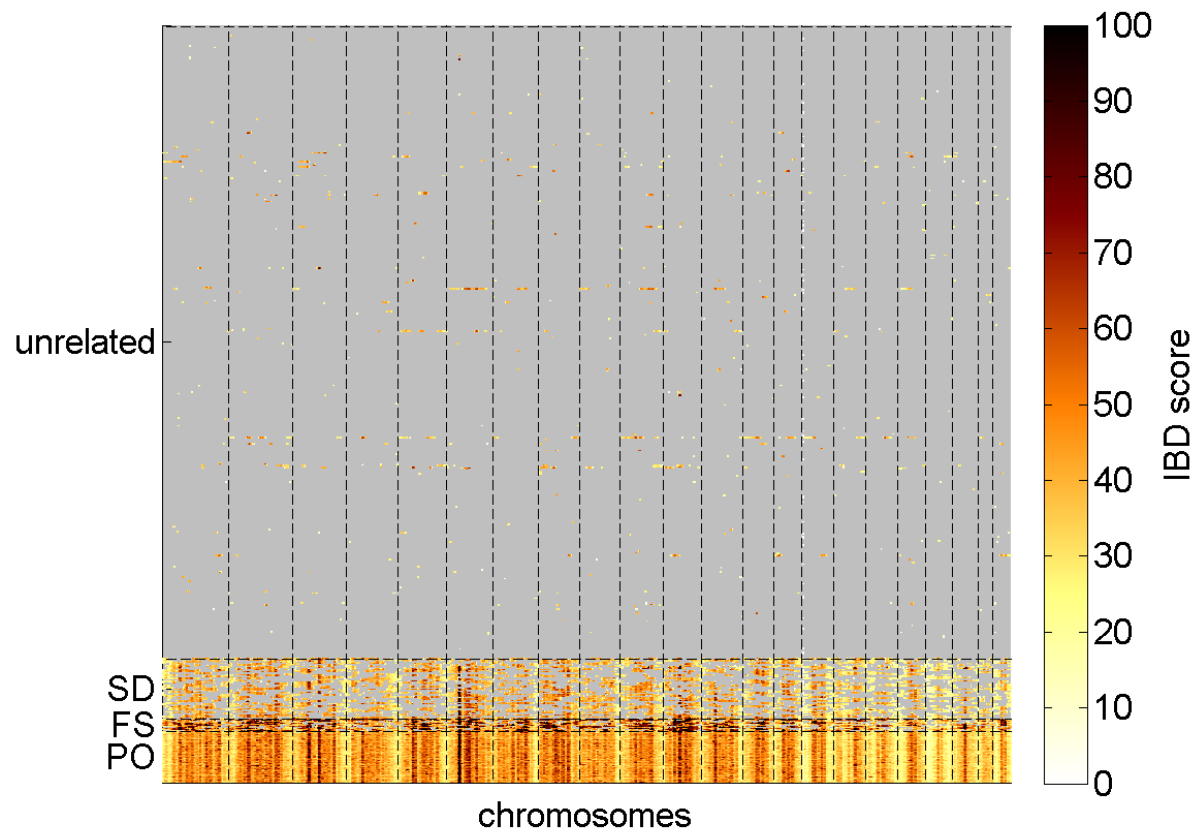


Figure S2

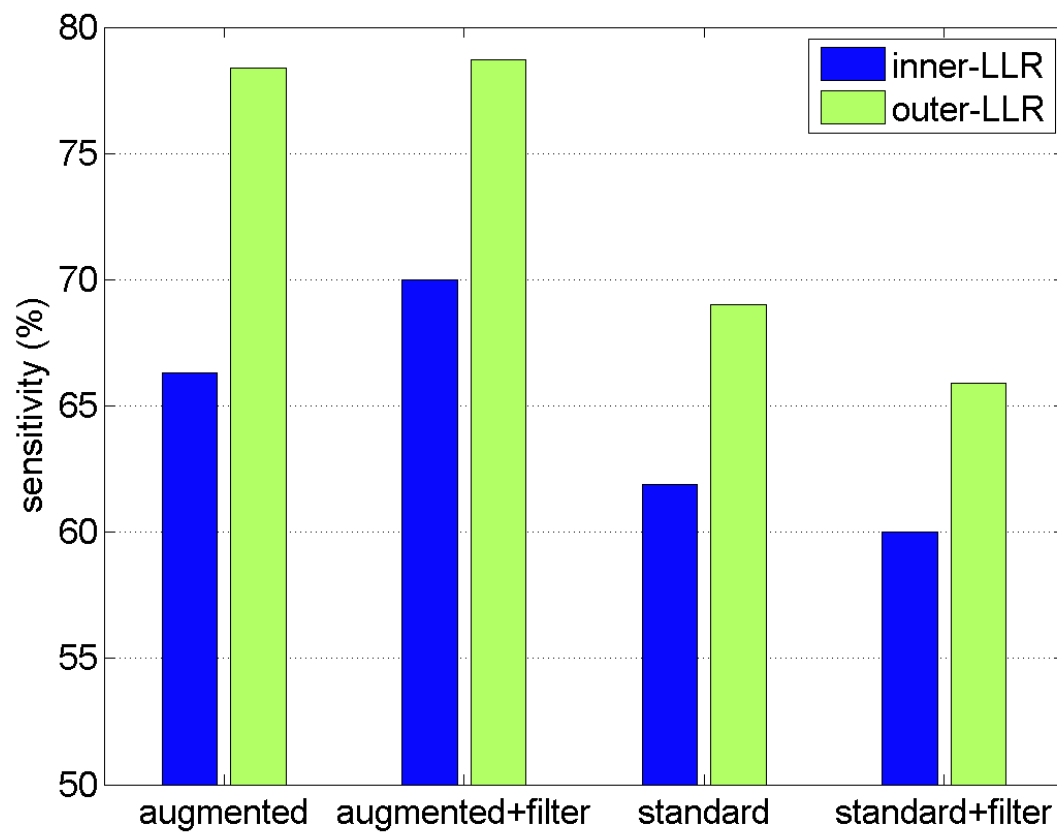


Figure Legends

Figure S1

Applying Parente2 on the 184 MKK samples from the HapMap Phase III panel. We applied Parente2 to detect IBD segments shared by 1,000 pairs of MKK samples. Among these sample pairs, 68 were reported as parent/offspring pairs (PO), 16 were reported as full sibling pairs (FS), 80 were reported as second-degree relative pairs (SD), and the remaining 836 were randomly selected from the sample pairs that were not reported as relatives in previous publications. We used color from light to dark to demonstrate the IBD score from low to high along all the chromosomes. The IBD scores of the regions in grey were below 0.

Tables

Table S1

	Mean %	Minimum %	Mean # IBD	Minimum #
Relatedness	genome IBD	genome IBD	segments	IBD segments
Parent-offspring	99.29	99.05	68.40	60
Sibling	74.89	66.24	83.00	77
Second-degree relative	49.01	28.81	61.55	32

Table S2

First individual	Second individual	% genome IBD	# IBD segments	Length of longest IBD
NA21737	NA21344	99.33%	70	172.889
NA21737	NA21366	99.09%	68	224.522
NA21737	NA21301	78.39%	81	150.805
NA21737	NA21302	55.20%	64	103.931
NA21520	NA21513	35.70%	56	96.577
NA21378	NA21455	34.88%	43	109.554
NA21318	NA21678	34.26%	48	74.345
NA21318	NA21597	34.08%	43	116.053
NA21351	NA21352	33.54%	46	110.66
NA21513	NA21686	33.33%	44	163.807
NA21316	NA21597	33.08%	41	119.878
NA21740	NA21479	32.35%	49	72.019
NA21514	NA21615	32.32%	51	102.832
NA21391	NA21485	32.29%	42	93.219
NA21316	NA21678	32.03%	41	92.0555
NA21382	NA21389	31.75%	57	60.1301
NA21363	NA21473	31.37%	42	74.7021
NA21370	NA21528	31.24%	42	126.283
NA21314	NA21423	31.08%	49	63.0164
NA21520	NA21614	30.67%	54	127.556
NA21513	NA21613	30.61%	53	78.5561
NA21526	NA21650	30.40%	52	73.2615
NA21740	NA21578	30.32%	48	110.406
NA21475	NA21478	30.19%	39	89.1235
NA21309	NA21379	30.13%	54	78.1501
NA21614	NA21686	29.95%	54	72.6317
NA21513	NA21614	29.78%	48	104.895
NA21512	NA21608	29.64%	51	64.0533
NA21425	NA21447	29.62%	53	73.428
NA21478	NA21490	29.46%	37	84.5835
NA21311	NA21313	29.32%	39	143.81
NA21587	NA21682	29.21%	35	129.401
NA21473	NA21686	29.21%	48	103.39
NA21438	NA21488	29.19%	48	56.7491
NA21391	NA21438	29.18%	54	51.6331
NA21613	NA21648	29.17%	53	66.1674
NA21487	NA21488	29.16%	46	80.6225
NA21317	NA21519	29.16%	44	95.294
NA21351	NA21363	29.08%	49	88.2178
NA21370	NA21587	29.07%	40	89.584
NA21312	NA21520	29.07%	37	86.457
NA21309	NA21616	29.03%	47	75.9994
NA21351	NA21473	29.01%	53	60.137
NA21423	NA21439	28.85%	40	65.3065
NA21520	NA21648	28.84%	50	79.2117
NA21313	NA21320	28.78%	42	117.354
NA21420	NA21440	28.71%	50	76.0468
NA21316	NA21635	28.63%	37	93.2165
NA21362	NA21587	28.39%	34	76.744
NA21318	NA21635	28.37%	33	93.2165
NA21370	NA21520	28.30%	45	55.1538
NA21356	NA21599	28.05%	47	65.3203
NA21417	NA21596	27.95%	41	119.243

NA21523	NA21509	27.69%	54	86.7893
NA21448	NA21455	27.68%	34	81.223
NA21351	NA21614	27.66%	50	53.519
NA21517	NA21575	27.63%	43	62.8103
NA21391	NA21488	27.54%	46	74.3765
NA21313	NA21617	27.39%	43	87.3216
NA21382	NA21384	27.20%	57	52.4865
NA21363	NA21614	26.91%	47	91.0546
NA21385	NA21526	26.80%	41	65.2061
NA21309	NA21517	26.78%	40	104.613
NA21414	NA21682	26.55%	38	79.6255
NA21473	NA21613	26.52%	55	65.508
NA21514	NA21608	26.48%	45	95.5382
NA21362	NA21528	26.20%	45	63.901
NA21435	NA21636	26.19%	47	54.6173
NA21473	NA21520	26.12%	52	67.1698
NA21313	NA21370	25.97%	44	81.1639
NA21363	NA21613	25.89%	39	110.301
NA21528	NA21682	25.87%	41	86.0756
NA21478	NA21631	25.82%	36	73.9753
NA21494	NA21528	25.64%	36	61.272
NA21519	NA21597	25.52%	39	87.8061
NA21365	NA21509	25.39%	38	95.8596
NA21450	NA21455	25.36%	44	84.3651
NA21494	NA21587	25.30%	33	78.0138
NA21313	NA21438	25.28%	40	66.7687
NA21453	NA21494	25.28%	33	127.922
NA21485	NA21490	25.20%	41	81.0813
NA21302	NA21366	25.16%	40	101.667
NA21367	NA21378	25.10%	43	66.809
NA21365	NA21357	24.99%	43	60.188
NA21303	NA21352	24.91%	39	78.0138
NA21597	NA21678	24.81%	45	86.4846
NA21619	NA21636	24.66%	38	63.2672
NA21438	NA21485	24.54%	40	55.103
NA21312	NA21613	24.46%	34	69.0533
NA21303	NA21414	24.36%	38	71.1289
NA21408	NA21423	24.27%	35	118.837
NA21435	NA21648	24.26%	45	48.6664
NA21314	NA21622	24.24%	40	65.5344
NA21521	NA21601	23.57%	24	93.0101
NA21362	NA21439	23.41%	41	56.5943
NA21455	NA21493	23.39%	38	86.4195
NA21367	NA21493	23.31%	41	84.1909
NA21420	NA21519	23.31%	34	74.691
NA21636	NA21647	23.30%	41	51.2968
NA21473	NA21614	23.27%	49	57.432
NA21597	NA21635	23.24%	40	70.5349
NA21370	NA21613	23.21%	43	64.8878
NA21351	NA21520	23.19%	50	56.2913
NA21352	NA21527	23.15%	31	92.9571
NA21475	NA21485	23.14%	44	77.6399
NA21320	NA21423	22.96%	37	63.4589
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NA21320	NA21366	22.83%	40	81.467
NA21423	NA21450	22.80%	38	71.602
NA21300	NA21717	22.77%	40	64.71

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NA21357	NA21400	22.21%	34	70.8028
NA21351	NA21303	22.17%	40	85.644
NA21519	NA21620	21.94%	38	72.283
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NA21685	NA21480	21.64%	29	83.6648
NA21418	NA21723	21.61%	45	42.9345
NA21312	NA21423	21.53%	37	62.5575
NA21741	NA21718	21.34%	35	64.579
NA21318	NA21420	21.32%	41	72.6194
NA21448	NA21494	21.30%	35	97.9582
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NA21351	NA21513	21.16%	40	79.6844
NA21351	NA21686	21.14%	34	98.5499
NA21421	NA21487	20.96%	38	64.4577
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NA21385	NA21650	20.77%	39	65.9886
NA21383	NA21387	20.74%	34	58.7445
NA21363	NA21513	20.71%	39	85.3989
NA21351	NA21613	20.49%	37	67.9859
NA21473	NA21513	20.35%	38	59.6131
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NA21363	NA21686	20.07%	35	103.931
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NA21365	NA21617	16.06%	27	73.2654
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NA21596	NA21634	15.91%	33	43.765
NA21613	NA21614	15.83%	44	36.5723
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NA21478	NA21485	15.78%	26	79.747
NA21352	NA21682	15.72%	23	77.1757
NA21614	NA21648	15.68%	34	60.0398
NA21344	NA21614	15.67%	25	59.4558
NA21301	NA21448	15.67%	23	69.3805
NA21302	NA21614	15.67%	31	55.8944
NA21357	NA21525	15.66%	31	41.2043
NA21478	NA21597	15.65%	28	41.8024
NA21473	NA21608	15.62%	32	61.466
NA21523	NA21597	15.58%	26	76.4337
NA21523	NA21723	15.58%	29	52.099
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NA21487	NA21490	15.42%	29	77.3237

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NA21351	NA21682	14.53%	23	60.17
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NA21420	NA21525	14.27%	23	110.133
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NA21382	NA21390	14.09%	31	56.8353
NA21733	NA21400	14.08%	27	89.1512
NA21336	NA21576	14.07%	26	85.6296
NA21513	NA21683	13.98%	28	47.1226
NA21386	NA21650	13.89%	26	66.2636
NA21367	NA21596	13.88%	25	85.8091
NA21435	NA21596	13.86%	27	52.718
NA21302	NA21414	13.86%	28	50.84
NA21825	NA21453	13.81%	30	34.3879
NA21399	NA21457	13.81%	21	63.6535
NA21336	NA21453	13.80%	28	70.6274
NA21351	NA21302	13.79%	26	85.644
NA21438	NA21490	13.78%	30	41.5604
NA21417	NA21717	13.78%	38	30.136

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NA21301	NA21614	13.67%	22	72.449
NA21435	NA21523	13.66%	26	44.663
NA21302	NA21352	13.64%	29	102.199
NA21486	NA21524	13.61%	30	62.2761
NA21301	NA21453	13.57%	19	93.6256
NA21300	NA21313	13.52%	19	63.7084
NA21420	NA21442	13.46%	27	76.0641
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NA21379	NA21421	12.96%	23	47.702
NA21359	NA21596	12.94%	32	53.334
NA21420	NA21635	12.92%	28	78.6578
NA21438	NA21487	12.92%	31	46.3693
NA21382	NA21529	12.92%	26	44.984
NA21578	NA21615	12.85%	26	64.6024
NA21733	NA21525	12.67%	18	100.292
NA21435	NA21453	12.63%	22	45.191
NA21477	NA21487	12.63%	26	68.2412
NA21400	NA21723	12.58%	29	47.119
NA21480	NA21631	12.56%	19	66.467
NA21825	NA21617	12.48%	19	50.8028
NA21523	NA21576	12.44%	31	53.605
NA21333	NA21434	12.39%	24	52.1621
NA21364	NA21632	12.37%	28	36.7674
NA21596	NA21647	12.31%	27	62.4289
NA21383	NA21384	12.28%	29	49.453
NA21424	NA21647	12.26%	31	34.4665
NA21382	NA21386	12.26%	27	37.6583
NA21478	NA21678	12.24%	27	35.543
NA21391	NA21439	12.22%	28	46.16
NA21825	NA21365	12.20%	24	63.78
NA21514	NA21648	12.19%	23	78.5561
NA21405	NA21578	12.19%	25	49.5945
NA21402	NA21683	12.17%	20	59.14
NA21365	NA21597	12.17%	17	87.4963
NA21303	NA21528	12.16%	25	38.678
NA21400	NA21525	12.14%	20	120.728
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NA21313	NA21439	12.08%	25	53.0581

NA21402	NA21583	12.03%	23	52.109
NA21312	NA21622	11.97%	19	65.4991
NA21344	NA21448	11.96%	18	54.5009
NA21420	NA21597	11.94%	24	51.5921
NA21303	NA21473	11.90%	22	61.48
NA21333	NA21596	11.90%	22	59.049
NA21301	NA21608	11.90%	25	44.7186
NA21365	NA21486	11.90%	28	77.0675
NA21320	NA21622	11.87%	25	63.4599
NA21405	NA21683	11.85%	23	61.7103
NA21737	NA21448	11.84%	18	54.523
NA21339	NA21359	11.80%	22	63.126
NA21478	NA21635	11.78%	27	34.6692
NA21451	NA21486	11.76%	26	39.538
NA21439	NA21488	11.70%	26	55.2573
NA21351	NA21608	11.70%	29	33.212
NA21303	NA21514	11.70%	23	66.8941
NA21438	NA21477	11.69%	24	50.7571
NA21366	NA21509	11.67%	24	36.9916
NA21359	NA21367	11.64%	23	51.7859
NA21733	NA21368	11.64%	25	35.7869
NA21424	NA21435	11.64%	28	48.998
NA21438	NA21478	11.60%	23	58.1141
NA21408	NA21439	11.57%	24	53.435
NA21435	NA21448	11.56%	21	56.7893
NA21351	NA21648	11.51%	25	39.617
NA21300	NA21479	11.44%	25	44.618
NA21303	NA21385	11.42%	18	65.8667
NA21363	NA21457	11.38%	27	36.34
NA21399	NA21578	11.37%	24	49.341
NA21420	NA21423	11.32%	23	49.408
NA21357	NA21401	11.32%	24	70.503
NA21320	NA21357	11.21%	27	32.095
NA21313	NA21423	11.17%	21	62.439
NA21582	NA21722	11.16%	29	32.781
NA21302	NA21608	11.10%	26	52.255
NA21361	NA21424	11.03%	26	47.344
NA21344	NA21381	11.02%	21	54.9513
NA21453	NA21614	10.97%	26	48.8776
NA21587	NA21622	10.96%	18	53.825
NA21440	NA21524	10.94%	25	45.1017
NA21737	NA21381	10.86%	20	68.6464
NA21494	NA21622	10.82%	16	52.6843
NA21473	NA21514	10.82%	25	49.7818
NA21402	NA21457	10.81%	16	50.5271
NA21336	NA21450	10.77%	20	51.1041
NA21313	NA21613	10.76%	17	63.4272
NA21480	NA21693	10.73%	19	68.68
NA21313	NA21367	10.72%	16	80.0085
NA21366	NA21435	10.68%	16	51.6512
NA21455	NA21494	10.66%	16	80.1553
NA21608	NA21717	10.66%	24	33.002
NA21457	NA21614	10.63%	28	42.2867
NA21390	NA21510	10.63%	26	39.9796
NA21478	NA21487	10.62%	18	93.843
NA21303	NA21682	10.61%	17	58.103
NA21298	NA21512	10.61%	20	51.998

NA21301	NA21417	10.58%	23	43.9453
NA21493	NA21614	10.58%	19	71.709
NA21351	NA21514	10.58%	25	36.6554
NA21344	NA21719	10.56%	24	51.0009
NA21737	NA21719	10.49%	23	55.6686
NA21339	NA21636	10.48%	21	64.889
NA21355	NA21583	10.46%	23	37.9281
NA21357	NA21597	10.44%	20	55.3
NA21383	NA21390	10.43%	22	56.7549
NA21378	NA21608	10.43%	17	57.6654
NA21301	NA21381	10.40%	17	45.5084
NA21367	NA21424	10.37%	24	45.8818
NA21521	NA21523	10.37%	22	54.049
NA21336	NA21390	10.35%	21	50.9209
NA21401	NA21509	10.34%	20	56.7286
NA21303	NA21608	10.33%	21	63.212
NA21636	NA21648	10.29%	27	28.165
NA21517	NA21619	10.26%	19	60.594
NA21597	NA21636	10.23%	25	59.9471
NA21352	NA21355	10.20%	21	48.1547
NA21381	NA21683	10.16%	18	59.583
NA21379	NA21485	10.11%	27	29.9092
NA21399	NA21583	10.10%	20	46.8221
NA21825	NA21494	10.09%	21	48.9739
NA21381	NA21457	10.09%	20	41.956
NA21298	NA21389	10.07%	15	78.1967
NA21363	NA21683	10.07%	27	33.713
NA21513	NA21716	10.07%	23	31.655
NA21333	NA21424	10.04%	15	59.309
NA21303	NA21440	10.03%	25	33.679
NA21311	NA21425	10.00%	24	53.66
NA21366	NA21378	9.97%	17	72.2421
NA21302	NA21448	9.96%	17	55.149
NA21512	NA21578	9.95%	21	36.146
NA21300	NA21718	9.92%	19	46.1048
NA21366	NA21723	9.90%	20	41.949
NA21448	NA21608	9.89%	16	53.188
NA21356	NA21361	9.89%	15	66.8359
NA21385	NA21587	9.89%	16	69.7459
NA21365	NA21400	9.88%	17	48.2795
NA21512	NA21718	9.86%	20	41.567
NA21425	NA21634	9.84%	24	45.523
NA21359	NA21647	9.84%	24	37.4921
NA21312	NA21425	9.83%	20	61.7
NA21784	NA21488	9.79%	20	42.7337
NA21320	NA21425	9.78%	21	40.659
NA21439	NA21485	9.73%	22	45.0652
NA21367	NA21494	9.73%	23	34.843
NA21825	NA21523	9.72%	17	44.28
NA21379	NA21487	9.70%	24	31.474
NA21318	NA21344	9.69%	16	50.959
NA21365	NA21476	9.67%	19	80.5
NA21737	NA21455	9.66%	17	72.5422
NA21344	NA21453	9.64%	17	72.2215
NA21402	NA21578	9.63%	18	49.6296
NA21421	NA21512	9.63%	16	54.8331
NA21615	NA21722	9.62%	22	94.3816

NA21304	NA21596	9.60%	21	66.266
NA21344	NA21455	9.58%	17	72.7158
NA21303	NA21683	9.58%	16	67.2758
NA21525	NA21597	9.56%	18	70.0277
NA21370	NA21523	9.55%	15	52.2665
NA21339	NA21648	9.53%	18	50.1678
NA21514	NA21717	9.53%	23	62.5467
NA21737	NA21453	9.50%	16	72.1919
NA21405	NA21583	9.50%	19	52.109
NA21339	NA21405	9.50%	23	50.2327
NA21357	NA21476	9.50%	19	47.158
NA21303	NA21362	9.50%	14	41.7454
NA21390	NA21583	9.45%	16	77.0511
NA21307	NA21722	9.44%	21	81.2745
NA21737	NA21318	9.44%	17	71.1147
NA21362	NA21488	9.43%	21	38.9687
NA21526	NA21587	9.42%	22	60.6119
NA21318	NA21336	9.39%	20	60.456
NA21693	NA21717	9.35%	22	29.6957
NA21740	NA21510	9.34%	24	36.323
NA21741	NA21513	9.28%	15	47.6594
NA21360	NA21400	9.24%	22	47.4741
NA21386	NA21527	9.24%	21	34.426
NA21339	NA21425	9.18%	19	49.2707
NA21421	NA21717	9.18%	21	44.6643
NA21339	NA21367	9.16%	19	39.363
NA21361	NA21716	9.13%	24	40.761
NA21379	NA21576	9.12%	17	43.3642
NA21365	NA21521	9.10%	20	40.8147
NA21425	NA21440	9.09%	21	49.4668
NA21316	NA21336	9.08%	18	42.955
NA21596	NA21636	9.07%	20	48.82
NA21312	NA21435	9.04%	21	46.4104
NA21583	NA21722	9.01%	20	43.0755
NA21648	NA21683	9.01%	21	67.0613
NA21401	NA21457	9.00%	14	63.08
NA21382	NA21486	8.99%	16	68.493
NA21615	NA21718	8.97%	18	51.48
NA21370	NA21435	8.95%	19	46.4901
NA21367	NA21435	8.91%	14	56.5115
NA21363	NA21608	8.90%	24	56.2644
NA21473	NA21683	8.89%	23	35.46
NA21370	NA21614	8.89%	23	34.1293
NA21365	NA21370	8.85%	16	72.3439
NA21448	NA21647	8.84%	20	41.8457
NA21365	NA21473	8.79%	17	55.061
NA21578	NA21718	8.78%	17	56.566
NA21312	NA21365	8.77%	16	73.1083
NA21303	NA21457	8.74%	19	68.9096
NA21379	NA21486	8.70%	22	31.7026
NA21400	NA21576	8.69%	20	56.2396
NA21457	NA21473	8.61%	24	40.7608
NA21344	NA21493	8.57%	18	55.3734
NA21339	NA21399	8.56%	22	40.9181
NA21417	NA21440	8.56%	19	43.873
NA21351	NA21365	8.54%	24	36.5086
NA21303	NA21613	8.54%	22	36.4539

NA21608	NA21648	8.53%	23	34.8325
NA21611	NA21722	8.51%	12	56.4463
NA21425	NA21647	8.51%	25	34.2205
NA21737	NA21493	8.50%	19	55.3734
NA21298	NA21717	8.47%	17	27.657
NA21303	NA21363	8.47%	16	68.635
NA21576	NA21723	8.46%	19	40.5487
NA21312	NA21614	8.46%	19	34.0711
NA21486	NA21525	8.45%	21	57.703
NA21302	NA21587	8.43%	16	84.9715
NA21455	NA21614	8.41%	18	37.9007
NA21473	NA21619	8.39%	20	41.506
NA21368	NA21723	8.38%	17	35.3
NA21357	NA21486	8.38%	15	46.13
NA21339	NA21631	8.37%	23	42.778
NA21317	NA21636	8.36%	21	40.249
NA21390	NA21453	8.33%	18	29.549
NA21320	NA21617	8.32%	14	43.5936
NA21363	NA21648	8.32%	21	66.2107
NA21733	NA21366	8.28%	14	44.8139
NA21300	NA21480	8.27%	20	44.5796
NA21480	NA21490	8.27%	17	44.8271
NA21439	NA21475	8.24%	24	36.6755
NA21476	NA21523	8.22%	16	80.5
NA21316	NA21515	8.22%	20	41.069
NA21362	NA21386	8.22%	16	56.4595
NA21784	NA21522	8.21%	19	37.8644
NA21424	NA21510	8.21%	17	45.0258
NA21424	NA21636	8.20%	21	32.573
NA21302	NA21473	8.18%	18	43.2147
NA21344	NA21620	8.17%	23	65.0332
NA21303	NA21423	8.16%	31	22.558
NA21362	NA21385	8.13%	11	86.5453
NA21359	NA21634	8.10%	23	26.3881
NA21457	NA21514	8.10%	14	61.1308
NA21457	NA21648	8.09%	17	67.0613
NA21341	NA21575	8.08%	18	62.6894
NA21351	NA21435	8.07%	19	48.602
NA21344	NA21417	8.07%	16	51.5173
NA21526	NA21528	8.07%	17	60.5833
NA21320	NA21435	8.06%	19	29.8663
NA21311	NA21622	8.05%	20	37.011
NA21737	NA21417	8.03%	16	51.4646
NA21382	NA21388	8.02%	17	61.1507
NA21333	NA21648	8.02%	13	45.735
NA21737	NA21620	8.00%	22	64.8119
NA21417	NA21425	7.99%	22	43.4456
NA21388	NA21488	7.99%	17	44.7974
NA21514	NA21683	7.98%	18	47.2581
NA21825	NA21366	7.96%	18	36.4
NA21366	NA21381	7.96%	15	54.7208
NA21475	NA21529	7.95%	17	32.8514
NA21367	NA21647	7.95%	23	26.8705
NA21578	NA21608	7.94%	20	36.278
NA21303	NA21450	7.92%	23	34.7873
NA21303	NA21526	7.90%	18	45.537
NA21301	NA21318	7.89%	14	49.9472

NA21417	NA21512	7.89%	20	29.676
NA21423	NA21440	7.87%	15	52.963
NA21344	NA21608	7.86%	18	59.2593
NA21447	NA21440	7.86%	16	45.8462
NA21737	NA21608	7.85%	18	59.2593
NA21475	NA21480	7.85%	21	35.0842
NA21580	NA21488	7.82%	14	61.0583
NA21442	NA21524	7.80%	19	43.592
NA21381	NA21614	7.78%	9	76.458
NA21435	NA21473	7.78%	15	44.132
NA21366	NA21617	7.76%	16	44.3223
NA21487	NA21524	7.76%	19	38.966
NA21313	NA21425	7.73%	17	62.018
NA21298	NA21615	7.72%	17	73.461
NA21415	NA21632	7.70%	15	40.9814
NA21365	NA21368	7.67%	15	52.5294
NA21341	NA21517	7.67%	18	46.557
NA21740	NA21435	7.64%	19	32.556
NA21391	NA21512	7.64%	16	54.8331
NA21298	NA21578	7.64%	11	54.996
NA21403	NA21489	7.64%	14	39.631
NA21333	NA21636	7.63%	17	53.1865
NA21362	NA21526	7.61%	14	97.5457
NA21391	NA21477	7.61%	21	27.363
NA21476	NA21509	7.61%	11	57.116
NA21420	NA21425	7.60%	12	37.94
NA21302	NA21682	7.58%	14	54.8331
NA21313	NA21454	7.58%	17	37.4
NA21784	NA21509	7.58%	13	84.8654
NA21476	NA21597	7.56%	14	56.807
NA21441	NA21450	7.55%	17	48.0051
NA21825	NA21448	7.53%	20	28.1259
NA21740	NA21401	7.52%	20	37.8182
NA21363	NA21514	7.49%	20	47.0845
NA21320	NA21476	7.49%	15	80.935
NA21622	NA21682	7.48%	14	51.7769
NA21420	NA21447	7.48%	19	32.4068
NA21366	NA21448	7.47%	11	54.5638
NA21298	NA21514	7.47%	16	68.144
NA21420	NA21636	7.45%	18	32.6101
NA21302	NA21686	7.45%	18	40.487
NA21357	NA21368	7.43%	18	51.6556
NA21578	NA21622	7.39%	13	34.561
NA21409	NA21632	7.38%	8	100.273
NA21617	NA21619	7.38%	15	34.6901
NA21825	NA21473	7.38%	11	42.5296
NA21486	NA21523	7.37%	22	38.097
NA21434	NA21517	7.35%	17	60.174
NA21435	NA21455	7.35%	16	45.21
NA21441	NA21517	7.34%	16	48.377
NA21617	NA21693	7.33%	20	31.276
NA21362	NA21650	7.33%	13	56.3358
NA21366	NA21597	7.32%	17	56.4901
NA21370	NA21622	7.32%	11	58.2349
NA21784	NA21368	7.32%	18	48.2941
NA21525	NA21576	7.31%	22	37.4968
NA21302	NA21650	7.31%	11	55.4739

NA21302	NA21513	7.31%	16	48.7465
NA21360	NA21718	7.30%	18	30.6954
NA21382	NA21487	7.29%	13	40.7797
NA21308	NA21441	7.28%	13	70.9428
NA21519	NA21512	7.26%	14	64.017
NA21740	NA21493	7.26%	16	36.553
NA21608	NA21617	7.23%	20	38.3124
NA21479	NA21493	7.22%	18	50.928
NA21525	NA21723	7.22%	13	45.0244
NA21339	NA21401	7.22%	21	31.103
NA21424	NA21515	7.21%	18	68.1639
NA21401	NA21523	7.21%	20	31.8327
NA21363	NA21435	7.20%	17	36.386
NA21473	NA21576	7.19%	17	33.509
NA21312	NA21523	7.18%	15	52.2243
NA21424	NA21648	7.16%	21	31.1989
NA21308	NA21486	7.15%	17	45.282
NA21580	NA21510	7.14%	17	39.995
NA21408	NA21420	7.13%	18	29.576
NA21740	NA21404	7.13%	19	41.403
NA21303	NA21386	7.11%	14	45.3675
NA21613	NA21608	7.09%	22	35.147
NA21493	NA21608	7.05%	15	60.676
NA21423	NA21520	7.04%	18	44.562
NA21339	NA21515	7.03%	19	29.0238
NA21379	NA21451	7.02%	11	62.7267
NA21784	NA21597	7.00%	14	37.504
NA21479	NA21510	7.00%	17	51.0225
NA21440	NA21587	6.99%	15	37.701
NA21303	NA21408	6.98%	16	53.583
NA21784	NA21631	6.97%	24	20.748
NA21391	NA21480	6.96%	13	53.8298
NA21311	NA21486	6.94%	19	37.864
NA21386	NA21587	6.94%	14	55.1719
NA21583	NA21596	6.92%	14	53.8199
NA21361	NA21647	6.90%	19	37.2925
NA21367	NA21634	6.89%	18	41.3618
NA21382	NA21488	6.89%	13	51.56
NA21318	NA21515	6.88%	14	50.0923
NA21576	NA21617	6.88%	19	32.6838
NA21450	NA21583	6.87%	13	60.333
NA21480	NA21635	6.84%	14	34.7784
NA21301	NA21722	6.84%	17	45.653
NA21408	NA21440	6.83%	17	38.32
NA21489	NA21515	6.82%	15	34.131
NA21454	NA21475	6.81%	11	54.788
NA21318	NA21615	6.81%	15	36.498
NA21366	NA21521	6.80%	15	30.6566
NA21308	NA21619	6.78%	18	36.12
NA21385	NA21528	6.77%	11	55.2417
NA21388	NA21529	6.77%	10	57.14
NA21825	NA21370	6.76%	12	52.0239
NA21401	NA21723	6.75%	21	40.707
NA21733	NA21576	6.75%	19	35.4833

Table Legends

Table S1. *Application of Parente2 on recovering previously reported cryptic relationships on the HapMap III MKK population.* In Pemberton et al. (2010), 68 parent-offspring, 16 sibling, and 80 other relationships were identified in the HapMap Phase III MKK population. Using Parente2 we uncovered all these relationships. The table reports statistics on mean and minimum IBD detected across the genomes of every pair of individuals of each relationship type.

Table S2. *Detection of additional putative relationships on the HapMap III MKK population.* We list all pairs of individuals not previously reported as related, for which IBD was detected at a whole genome level higher than 10%.