

Supplementary Table 1

Homozygosity Haplotype analysis of Family 4

| Chromosome | Physical position (bp) | start/end | SNP | Genetic distance (cM) |
|------------|------------------------|-----------|------------|-----------------------|
| 2 | 206652963 | start | rs3755232 | 213.82 |
| 2 | 216770807 | end | rs11891588 | 223.84 |
| 3 | 61495 | start | rs13060385 | 0.00 |
| 3 | 8808285 | end | rs237897 | 22.56 |
| 3 | 30590213 | start | rs7616969 | 53.38 |
| 3 | 31757599 | end | rs3792549 | 54.80 |
| 5 | 3339142 | start | rs7703994 | 8.37 |
| 5 | 10620274 | end | rs879143 | 24.55 |
| 6 | 80454831 | start | rs2092745 | 89.15 |
| 6 | 91531693 | end | rs9351245 | 97.75 |
| 8 | 33203726 | start | rs1996363 | 61.52 |
| 8 | 39850058 | end | rs2543073 | 66.32 |
| 8 | 96979871 | start | rs10955055 | 107.65 |
| 8 | 123931864 | end | rs16897667 | 131.52 |
| 11 | 69269768 | start | rs7113550 | 74.86 |
| 11 | 81842796 | end | rs1892876 | 89.55 |
| 17 | 57480798 | start | rs7213065 | 83.10 |
| 17 | 67336421 | end | rs17687227 | 95.08 |
| 18 | 27500959 | start | rs9304548 | 49.08 |
| 18 | 78015180 | end | rs12960632 | 117.71 |