	ome	Physical.Position	Q. (2	-	7					~		
	Chromosome	ysical.	dbSNP.RS.ID	A1730 II-1	A1730 II-2	A825 II-1	A237 II-1	A237 II-2	A646 II-1	A1686 II-2	A159 II-1	A887 II-1
	1	₹ 174541217 174541284	号 rs10913445 rs10798574	AB A1	AB NoCall	AB	AB AB	AB	AB BB	AB	AB	BB AB
18	1 1 1	174541284 174541518 174542963	rs10913446 rs12143390	AA AA	AA AA	AB AB AA	AB AA	AB AB	AA AA	AB AB AA	AB AB AA	AS AS
	1	174543012 174543156	rs7547105	BB BB	88 88	88 88	88 88	BB BB	88 88	BB BB	88 88	BB AB
	1 1	174543674 174547426	rs3886720 rs12757638	BB AA	BB AA	BB AB	BB AB	BB AB	BB AA	BB AB	BB AB	AB BB
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	1 1 1	174634139 174636152	rs3813648 rs10489882	AA AA BB	AA BB	AB AB	AA AB	AA AB	AA BB	AA AA BB	AB AA	AA AB
	1	174636628 174643864	rs10913465 rs4652279	88 88	88 88	BB BB	88 88	BB BB	88 88	BB AB	88 88	AB AB
	1 1	174647131 174661597	rs842192 rs7413442	BB AA	BB AA	BB AA	BB AA	BB AA	BB AA	AB AA	AB AA	BB AA
	1	174666707 174666860	rs1889981 rs954502	88 88	88 88	AB AB	AB AB	AB AB	88 88	AB BB	AB BB	AA AA
	1	174666932 174675469	rs1415085 rs869286	AA AA	AA AA	AA AB	AA AB	AA AB	AA AA	AA AB	BB	BB
	1	174681883 174695228	rs1556975 rs10913483	BB OB	BB BB	AB AB	AB AB	AB AB	BB BB	AB AB AB	AA AA	AA
	1 1	174699854 174700896 174700972	rs1336779 rs16852325 rs4652286	AA BB	AA BB	BB AB BB	AB BB	AB BB	BB AA BB	AA AB	AA AA	AA AA
	i 1	174701023 174702804	rs4652287 rs12409286	AA AA	AA AA	AA AB	AA AB	AA AB	AA AA	AB AA	BB AB	BB AB
	1	174709363 174711465	rs12078421 rs1932847	AA BB	AA BB	AA BB	AA BB	AA BB	AA BB	AA AB	AA AB	AA A8
	1 1	174711877 174726129	rs7531837 rs946819	AA BB	AA BB	AA BB	AA BB	AA BB	AA BB	AB BB	AB AB	AB AB
	1	174740130 174757951	rs10753177 rs7520853	AA BB	AA BB	AA BB	AA BB	AA BB	BB	AA BB	AB 88	AB AB
	1 1 1	174762258 174767512 174827461	rs16852397 rs6681729 rs12071903	BB AA								
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	1	174912376 174938285	rs10798600 rs10913522	AA BB								
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	1 1 1	175181961 175184286 175189519	rs6693257 rs10913560 rs1397187	AA AA	AA	AA	AA .	AA AA	BB AA	AA	AA	BB AA
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	i 1	175202522 175214539	rs10158298 rs12096233	AA AA								
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	1 1	175240587 175246969	rs6700266 rs4650994	BB AA	BB AA	BB AA	BB AA	BB AA	AB AB	BB AA	BB AA	BB AA
	1 1	175252540 175263845	rs4075703 rs4650999	NoCall AA	AB AA	AA AA	AA AA	AA AA	AA AB	AA AA	AA AA	AA AA
	1	175263880 175283102	rs4651000 rs6685710	88 88	88 88	88 88	88 88	88 88	AB BB	88 88	BB	BB
	1 1 1	175283129 175284532 175291816	rs2811297 rs2811302 rs2811271	AA AA BB	AA AA	AA AA BB	AA AA	AA AA BB	AB AB AB	AA AA	AA AA	AA AA
	1	175305874 175315506	rs2811291 rs2761467	AA AA	AA AA	AA AA	AA AA	AA AA	AB AA	AA AA	AB AA	AB AA
	1	175320711 175350840	rs7545103 rs2811314	AA AA	AA AA	AA AA	AA AA	AA AA	AB AB	AA AA	AA AB	AA AB
	1	175351557 175352753	rs2476561 rs10913590	88 88	88 88	88 88	88 88	BB BB	AB BB	88 88	AB BB	AB BB
	1	175357156 175357677	rs2761476 rs6690886	AA AA	AB AB	AB AB						
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	1 1 1	175377217 175388622 175388695	rs10913603 rs2811248 rs12407833	AA AA								
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	1 1	175441623 175477268	rs4652319 rs6662050	AA BB	AA BB	AA BB	AA BB	AA AB	AA BB	AB BB	AA BB	AB BB
	1	175569656 175651683	rs17725459 rs12138385	AA AA								
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	1 1	175721121 175765886 175769812	rs7520456 rs12131503 rs12083856	AA AA	AA AA	AA AA	AA AA	AA AA	AB AA AA	AA AA	AA AA	AA AA
	1 1	175777618 175780080	rs3766623 rs10798651	AA BB	AA BB	AA BB	AA BB	AA BB	AA AB	AA BB	AA AB	AA BB
	1	175782135 175784708	rs3813639 rs4652355	AA BB								
	1 1	175792765 175793084	rs1570807 rs10798652	AA AA								
	1 1	175798728 175835358	rs10913690 rs2636287	88 88	88 88	BB BB	88 88	88 88	88 88	88 88	88 88	88 88
	1 1	175933866 175942333	rs2793799 rs2816169	BB BB	88 88	88 88	88 88	BB BB	88 88	BB BB	88 88	BB BB
	1 1 1	175955383 175966135 175984249	rs1078872 rs425858 rs16853837	88 88 88								
	1 1	175984249 176015297 176083994	rs16853837 rs4652363 rs4652367	AA BB	BB AB BB							
	î	176131917 176135670	rs10913753 rs6659294	BB AA								
	1 1	176139065 176143754	rs6683623 rs6664339	AA AA								
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	1 1	176183932 176190305	rs10494520 rs10913797	AA AA								
	1 1	176191211 176191333 176218255	rs6674086 rs6674274 rs7512551	BB AA BB	AA BB	BB AA BB	AA BB	BB AA BB	AA BB	AA BB	AA BB	AA BB
	1 1	176228436 176228630	rs11805319 rs964982	88 88	BB BB							
	î	176228676 176228721	rs964983 rs964984	AA AA								
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1 176248797 1 176249023	rs10494515 rs928016	BB BB	AA BB								
1 176279407	rs7517766	ВВ	ВВ	BB	BB	ВВ	BB	ВВ	BB	ВВ	NPHS2
1 176279924	rs1887816	BB	88	BB	BB	ВВ	BB	BB	88	BB	111 1132
1 176283309	rs1887814	88	88	88	88	BB	88	BB	88	BB	
1 176285381 1 176291289	rs3930537 rs10753199	88 88	88 88	88 88	BB BB	88 88	88 88	88 88	88 88	BB BB	
1 176293800	rs4652420	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176294364	rs12070589	AB	88	BB	8.8	BB	BB	BB	NoCall	BB	
1 176295374	rs4652421	BB	88	88	BB	AB	88	AB	88	BB	
1 176295801	rs10753200	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176344604 1 176383633	rs4652430 rs10913863	AB	88 88	88 88	88 88	BB BB	88 88	88 88	AB BB	BB BB	
1 176410268	rs16854559	88	88	88	BB	BB	88	BB	88	BB	
1 176410300	rs4652445	BB	88	BB	BB	BB	BB	BB	88	BB	
1 176422257	rs2504059	NoCall	88	BB	BB	BB	88	ВВ	88	AB	
1 176422390	rs12085280	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176422474 1 176422542	rs12085323 rs3843266	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	
1 176456249	rs10913878	BB	BB	BB	BB	BB	BB	BB	88	BB.	
1 176456316	rs10798718	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176464850	rs17279065	BB	88	BB	BB	BB	BB	BB	BB	AB	
1 176465401	rs16854685	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176466461 1 176470383	rs3893369 rs6425592	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	
1 176474476	rs17370180	BB	BB	RR	RR	BR	RR	BB	RR	BB	
1 176479881	rs4448483	AA	AA	AA	AA	AA	AA	AA	AA	AB	
1 176480171	rs4448484	BB	88	BB	88	BB	BB	BB	88	AB	
1 176509639	rs1148824	AA	AA	AA	AA	AA	AA	AA	AA	AB	
1 176522175 1 176534035	rs10913893 rs1148819	NoCall AA	BB AA	AB AA							
1 176534035	rs1148819 rs1281425	AA	AA	AA	AA	AA AA	AA AA	AA AA	AA AA	AA	
1 176553101	rs17279483	BB	88	BB	BB	BB	88	BB	88	BB	
1 176553187	rs16854843	BB	88	88	88	AB	88	88	88	88	
1 176559038	rs1281415	NoCall	AA	AA	AA	AB	AA	AA	AA	AA	
1 176562905 1 176577264	rs1048418 rs16854861	AA	AA	AA BB	AA	AA	AA	AA	AA	AB BB	
1 176587057	rs16854861 rs16854900	BB BB	88 88	88 88	88 88	BB BB	88 88	88 88	88 88	88	
1 176587246	rs566770	AA	AA	AA	AA	AA	AA	AA	AA	AA	
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1 176627421 1 176627518	rs474258 rs475233	AA	AA	AA	AA	AA	AA	AA	AA	AB AB	
1 176627518 1 176628727	rs475233 rs507603	AA	AA	AA	AA	AA	AA	AA AA	AA .	AA	
1 176632635	rs2777910	BB	88	88	BB	BB	88	88	88	BB	
1 176642563	rs504202	88	88	88	88	88	88	88	88	88	
1 176656290	rs12141817	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176656761 1 176726285	rs12139323 rs16855130	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176749911		AA	AA	AA	AA	AA	AA	AA	AA	BB AB	
1 176754000	rs9425854	AA	AA	AA	AA	AA	AA	AA	AA	AB	
1 176770794	rs10913927	BB	88	BB	BB	BB	88	BB	88	AB BB	
1 176811970	rs16855289	88	88	BB	88	88	88	88	88	BB	
1 176827806 1 176833566	rs9425483 rs16855311	BB BB	88 88	88 88	88 88	BB BB	88 88	88 88	88 88	BB	
1 176833741	rs4652470	BB	88	BB	BB	BB	88	BB	88	AB	
1 176835508	rs4336810	NoCall	88	BB	88	BB	88	BB	NoCall	AB BB	
1 176868161	rs6690609	BB	88	BB	BB	BB	BB	BB	88		
1 176871444	rs4651059	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176881835 1 176882376	rs16855388 rs16855395	BB BB	88 88	88 88	88 88	BB BB	88 88	88 88	88 88	88	
1 176882376 1 176883917	rs3767179	AA	AA	AA	AA	AA	AA	AA	AA	BB AB	
1 176899301	rs7544147	AA	AA	AA	AA	AA	AA	AA	AA	AB	
1 176919579	rs3894209	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176926100	rs355623	BB	88	BB	BB	BB	BB	BB	88	BB	
1 176926329 1 176932841	rs355621 rs6425616	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176932841 1 176938471	rs6425616 rs7525475	AA AA	AA.	BB AA	BB AA	BB AA	AA	AB AA	AA	BB AB	
1 176938592	rs355631	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176938728	rs355632	AA	AA	AA	AA	AA	AA	AB	AA	AB	
1 176942448	rs7527274	BB	BB	BB	BB	BB	BB	AB	88	AB	
1 176954497	rs12072920	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176964407 1 176967892	rs7520941 rs2794961	AA	AA	AA	AA	AA	AB AB	AA AB	AA	AA	
1 176967892 1 176974316		AA	AA	AA	AA	AA	AB	AA	AA	AA	
1 176976391	rs16855661	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 176981817	rs716760	AA	AA	AB BB	AB BB		AB	AA	AA	AB BB	
1 177032593	rs6675208	BB	88		8.8	AB BB	BB	BB	88		
1 177064344	rs16855910	BB	88	88	8.8	BB	88	BB	88	BB	
1 177076449	rs12691484	AA	AA	AB AA	AB AA	AB AA	AA	AA	AB AA	AB AA	
1 177111349 1 177125814	rs6425632 rs16856007	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	AA AA	
1 177173504	rs12039933	AA	AA	AA	AA	AA	AA	AA	AA	AA	
1 177173701	rs10798769	AA	AA	AB	AB	AB	AB	AA	AA	AB	
1 177186964	rs12089373	BB	88	BB	BB	BB	BB	BB	88	BB	
1 177200747	rs1339721	BB	88	88	BB	BB	88	BB	88	BB	
1 177222995 1 177246947	rs7515052 rs6697232	BB	88	AB BB	AB	AB	88	88 88	88 88	AB AB	
1 177246947	rs8697232 rs3845398	A8	AB	AB	BB AB	BB AB	PR	88 88	BB BB	BB	
1 177266064	rs12562357	AB		BB	BB	BB	AB	AB	AA	BB	
1 177278207	rs10914046	ВВ	AB BB	ВВ	BB.	ВВ	AB	AB	88	ВВ	
1 177280821	rs4652519	NoCall	AB	AB	AB	AB	BB	BB	BB	AB	

Supplementary Figure 2. The European "founder" mutation R138Q of NPHS2 occurs on a shared haplotype by descent from a common ancestor.

Haplotypes from a 250k SNP array of 7 different families with steroid resistant nephrotic syndrome due to the homozygous European "founder" mutation R138Q of NPHS2 are shown. Homozygous alleles are on green background (light green for "AA", dark green for "BB"). Heterozygous alleles are on red background. "No calls" by the SNP evaluation software BRLMM are on white background. Continous segments of homozygosity (that are partially interrupted by rare false heterozygous allele calls) are encased in colored boxes and delimited by same-color brackets on the left with their heterozygous flanking markers indicated in the same color. The position of the NPHS2 gene is indicated.

Note that all families within the homozygous region share identical homozygous alleles (with the exception of a few false heterozygous allele calls). In this way we demonstrate that the European "founder" mutation R138Q of *NPHS2* does in fact occur by descent from a founder as proposed (Boute et al. 2000). The homozygous intervals measure 2.70 Mb in A1730, 2.3 Mb in A825 and A237 ~1.2 Mb in A646, A1686 and A159, and 0.68 Mb in A887. Whereas the intervals of 2.70 Mb were detectable as a cZLR peak the shorter intervals were not (see **Table 1** and **Figure 3**).