

Table S1. Summary of the analysis result for high order LD scans.

		Raw data				Filter one way r2 >0.6				
		cis-cis	cis-trans	trans-trans	Total	cis-cis	cis-trans	trans-trans	Total	
Pair 1	Num of calculations	9.21e+10	2.64e+11	2.11e+11	5.68e+11	6.46e+10	1.84e+11	1.45e+11	3.94e+11	
	Hits	100	54236	75479	131653	38358	51809	1933	92100	
		728	38744	53654	92479	21680	28457	26	50163	
Pair 2	Num of calculations	3.35e+10	1.40e+11	1.59e+11	3.33e+11	2.20e+10	9.35e+10	1.07e+11	2.23e+11	
	Hits	100	52900	76209	130229	39176	48399	1120	88695	
		728	31354	48345	79701	18351	24295	2	42648	
Pair 3	Num of calculations	3.35e+10	1.37e+11	1.52e+11	3.22e+11	2.20e+10	9.12e+10	1.02e+11	2.15e+11	
	Hits	100	48050	67786	116251	33309	49782	0	83091	
		728	33309	49782	83091	19609	23290	0	42899	
Total	Num of calculations	1.592e+11	5.426e+11	5.227e+11	1.224e+12	1.088e+11	3.694e+11	3.555e+11	8.337e+11	
	Hits	100	155186	219474	378133	110843	149990	3053	263886	
		728	103407	151727	255217	59568	76042	28	135638	
Genome	Num of calculation	5.67e+12	5.85e+14	1.71e+16	1.77e+16	4.46e+12	4.85e+14	1.41e+16	1.46e+16	
	Hits	100 mean/sd.er	9677673/5317336	386500271/179449513	161921921/3943330	/	9092135/5258931	325828262/154851233	167549625/16648189	/
		728 mean/sd.er	6315806/3310607	265911259/120350459	3390052/2592970	/	4589735/2528037	162260386/71413958	1395341/924728	/