

Table S1. Average number of SNPs needed to include 50% and 90% causal SNPs among 100 simulated data sets under different number of causal SNPs for binary trait.

	1 ^a		2		3		4		5	
	50%	90%	50%	90%	50%	90%	50%	90%	50%	90%
CAVIARBF	1.53	12.00	4.00	17.00	4.83	19.33	7.50	23.67	9.11	24.00
BIMBAM	1.50	12.00	3.68	16.75	4.92	20.00	7.63	24.00	9.16	25.00
PAINTOR	1.50	10.67	5.83	23.33	7.11	26.50	9.91	26.11	11.92	28.80
ENET	1.80	NA	6.20	NA	7.50	29.43	10.88	NA	13.50	NA
LASSO	1.63	NA	5.50	NA	8.29	NA	13.67	NA	15.00	NA
CAVIARBF(ref)	1.70	13.50	4.29	17.00	6.17	22.83	9.08	24.64	10.56	26.25

^aThe number of causal SNPs in the data. The smallest number for each column is in bold. NA: data not available for the calculation. CAVIARBF(ref): CAVIARBF with the correlation among SNPs estimated from the CEU population of the 1000 Genomes Project.