## score test

	SNP	Methylation	interaction
1	0.587928408218561	1.10416120691070e-11	0.466203932675553
2	0.188089031173250	0.390635233878669	0.431160356700779
3	0.261717954628214	0.515957826164627	0.881570222469210
4	0.382279736829319	0.748381634169267	0.555566789796009
5	0.392338826126565	0.326226609063188	0.948184238222466
6	0.233333354590656	0.937317179576322	0.843927447767619
7	NaN	NaN	NaN
8	0.743181736936553	0.748233045831177	0.720577740199029
9	0.251427077570070	0.975143365341300	0.784799711578149
10	0.262327120699936	0.266942647136723	0.565199586177291
11	NaN	NaN	NaN
12	0.00632510565535804	7.49166167879345e-07	0.0826805325662834
13	0.00195055996773275	0.00559585167325649	0.271417622270505
14	0.457326288429131	0.331796163933252	0.713228562653450
15	NaN	NaN	NaN
16	0.434619996890731	0.801512434821034	0.888802671344925
17	0.0871364386192036	0.160556333466889	0.797422606734230
18	0.278930494401764	0.872991323184813	0.644239160418580
19	0.485879144794942	0.130843928656980	0.419995137651413
20	0.257582188289078	0.549990870476669	0.221537567640177
21	0.586428004837723	0.212710181717234	0.257824303983922
22	0.00145840018438492	0.0106453835961069	0.487697183835970
23	0.387974492020957	0.725424797863326	0.941829151421461
24	0.0647155197946010	0.203654428941415	0.104294985564966
25	NaN	NaN	NaN
26	0.580102730660599	0.564181785346428	0.767925868564177
27	0.320861943107647	0.512291514746399	0.737552076006921
28	NaN	NaN	NaN
29	5.16254861082643e-09	0.621401213520285	0.740532481268290
30	0.196766210609917	0.677718103728762	0.978251702357581
31	2.54664989096653e-08	0.102328414753984	0.428399465400240
32	0.619311919274421	0.292251045494236	0.228914342891660
33	0.0373846161908543	0.133657981975490	0.554596976398296
34	0	0	0.545741584627018
35	0.144369816452744	0.119008839465675	0.336890800306278
36	0.0917918372962617	0.0357121412066730	0.950167858981717
37	0.356516005791962	0.0183177484465611	0.480470457436381
38	0.366654598104203	0.337690302602539	0.186660546124139
39	0.0188898644634193	0.247471385611082	0.618286140680053
40	NaN	NaN	NaN

	SNP	Methylation	interaction
41	0.646679833426740	0.0823862375299514	0.570736786661319
42	NaN	NaN	NaN
43	0.0965847824096501	0.554811561968412	0.563639045649120
44	0.243158884102753	0.0847362380323550	0.0619081439638340
45	0.140687226918172	0.0370954232341432	0.879249530322115
46	0.00782306504706942	0.00399886517617831	0.307289219436337
47	0.957094700027739	0.724165615104378	0.920790640337053
48	0.741018714223976	0.927971407352538	0.250496381763964
49	0.646366986044699	4.92406115881749e-12	0.211959169221092
50	0.311969048512433	0.767228723192964	0.727847095490989

## permutation test version2

	SNP	Methylation	interaction
1	0.0119880119880120	0.000999000999000999	0.000999000999000999
2	0.000999000999000999	0.000999000999000999	0.000999000999000999
3	0.0529470529470529	0.000999000999000999	0.000999000999000999
4	0.0359640359640360	0.000999000999000999	0.000999000999000999
5	0.00899100899100899	0.000999000999000999	0.000999000999000999
6	0.00499500499500500	0.0769230769230769	0.000999000999000999
7	NaN	NaN	NaN
8	0.125874125874126	0.000999000999000999	0.000999000999000999
9	0.000999000999000999	0.000999000999000999	0.000999000999000999
10	0.000999000999000999	0.000999000999000999	0.000999000999000999
11	NaN	NaN	NaN
12	0.000999000999000999	0.000999000999000999	0.000999000999000999
13	0.000999000999000999	0.000999000999000999	0.000999000999000999
14	0.00699300699300699	0.000999000999000999	0.000999000999000999
15	NaN	NaN	NaN
16	0.000999000999000999	0.000999000999000999	0.000999000999000999
17	0.000999000999000999	0.000999000999000999	0.000999000999000999
18	0.0179820179820180	0.0439560439560440	0.000999000999000999
19	0.00299700299700300	0.000999000999000999	0.000999000999000999
20	0.00299700299700300	0.000999000999000999	0.000999000999000999
21	0.171828171828172	0.000999000999000999	0.000999000999000999
22	0.000999000999000999	0.000999000999000999	0.000999000999000999
23	0.000999000999000999	0.000999000999000999	0.000999000999000999
24	0.000999000999000999	0.000999000999000999	0.000999000999000999
25	NaN	NaN	NaN
26	0.0319680319680320	0.000999000999000999	0.000999000999000999
27	0.00299700299700300	0.000999000999000999	0.000999000999000999
28	NaN	NaN	NaN
29	0.000999000999000999	0.000999000999000999	0.000999000999000999
30	0.0289710289710290	0.00199800199800200	0.000999000999000999
31	0.000999000999000999	0.000999000999000999	0.000999000999000999

	SNP	Methylation	interaction
32	0.000999000999000999	0.000999000999000999	0.000999000999000999
33	0.000999000999000999	0.000999000999000999	0.000999000999000999
34	0.000999000999000999	0.000999000999000999	0.000999000999000999
35	0.000999000999000999	0.000999000999000999	0.000999000999000999
36	0.000999000999000999	0.000999000999000999	0.000999000999000999
37	0.000999000999000999	0.000999000999000999	0.000999000999000999
38	0.108891108891109	0.000999000999000999	0.000999000999000999
39	0.000999000999000999	0.000999000999000999	0.000999000999000999
40	NaN	NaN	NaN
41	0.00699300699300699	0.000999000999000999	0.000999000999000999
42	NaN	NaN	NaN
43	0.00799200799200799	0.0109890109890110	0.000999000999000999
44	0.000999000999000999	0.000999000999000999	0.000999000999000999
45	0.00799200799200799	0.000999000999000999	0.000999000999000999
46	0.000999000999000999	0.000999000999000999	0.000999000999000999
47	0.739260739260739	0.000999000999000999	0.000999000999000999
48	0.0169830169830170	0.000999000999000999	0.000999000999000999
49	0.415584415584416	0.000999000999000999	0.000999000999000999
50	0.000999000999000999	0.000999000999000999	0.000999000999000999

## permutation test version1

	SNP	Methylation	interaction
1	0.993250067499325	0.945680543194568	1
2	0.944360556394436	1	1
3	0.530394696053040	0.999900000999990	1
4	0.822751772482275	1	1
5	0.893921060789392	1	1
6	0.717222827771722	0.999750002499975	1
7	NaN	NaN	NaN
8	0.985100148998510	1	1
9	0.992710072899271	1	1
10	0.952600473995260	1	1
11	NaN	NaN	NaN
12	0.776192238077619	1	1
13	0.271147288527115	1	1
14	0.974260257397426	0.993580064199358	1
15	NaN	NaN	NaN
16	0.992070079299207	1	1
17	0.873761262387376	1	1
18	0.761012389876101	0.999030009699903	1
19	0.995340046599534	0.999490005099949	1
20	0.862691373086269	0.999660003399966	1
21	0.875451245487545	0.932070679293207	1
22	0.997610023899761	1	1
23	0.995990040099599	1	1
24	0.626923730762692	1	1
25	NaN	NaN	NaN
26	0.979110208897911	0.999770002299977	1
27	0.979470205297947	0.999970000299997	1
28	NaN	NaN	NaN
29	0.0107698923010770	0.999550004499955	1
30	0.455315446845532	0.999980000199998	1
31	0.0390196098039020	1	1
32	0.999910000899991	1	1

	SNP	Methylation	interaction
33	0.587144128558715	0.987810121898781	1
34	1.99998000020000e-05	0.000529994700053000	1
35	0.997840021599784	0.999820001799982	1
36	0.701422985770142	1	1
37	0.983470165298347	0.997820021799782	1
38	0.613583864161358	0.996470035299647	0.999880001199988
39	0.347876521234788	0.999060009399906	1
40	NaN	NaN	NaN
41	0.998060019399806	1	1
42	NaN	NaN	NaN
43	0.402975970240298	0.982710172898271	1
44	0.985660143398566	1	1
45	0.427695723042770	0.742792572074279	1
46	0.0530394696053039	0.705922940770592	1
47	0.999590004099959	1	1
48	0.997250027499725	1	1
49	0.840111598884011	9.99990000099999e-06	0.996280037199628
50	0.993760062399376	1	1