Table S1. An illustration of six two-SNP interaction models used in the simulation. SNP 1 has genotype AA, Aa and aa; SNP 2 has genotype BB, Bb, and bb. A and B are the major alleles for SNP1 and 2, respectively. Each entry in the tables represents the risk of the corresponding genotype combination.

|  |  |  |  |
| --- | --- | --- | --- |
| Model 1 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 2 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 3 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 4 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 5 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 6 | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 3a | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Model 3b | AA | Aa | aa |
| BB |  |  |  |
| Bb |  |  |  |
| bb |  |  |  |