**Table 4–Source Data 5. Association between quartile methylation level of identified CpGs and cholesterol in high-density lipoprotein (mmol/L).**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Quartile 2 | | Quartile 3 | | Quartile 4 | | P for trend  (adjusted for batch) | P for trend (adjusted for SVs) |  | Mediation effect | |
| CpGs | Effect size (se) | P | Effect size | P | Effect size | P |  | Proportion mediated, % | P |
| cg15833447 | -0.024 (0.025) | 0.343 | 0.015 (0.026) | 0.556 | 0.037 (0.026) | 0.154 | 0.013 | 0.102 |  | -10.77 | 0.180 |
| cg21210537 | 0.044 (0.026) | 0.084 | 0.036 (0.026) | 0.178 | 0.040 (0.027) | 0.146 | 0.019 | 0.014 |  | 7.30 | 0.235 |
| cg07560408 | -0.032 (0.025) | 0.212 | 0.018 (0.025) | 0.488 | 0.031 (0.026) | 0.236 | 0.073 | 0.173 |  | - | - |
| cg16639138 | 0.007 (0.025) | 0.790 | 0.021 (0.025) | 0.393 | 0.021 (0.025) | 0.400 | 0.165 | 0.175 |  | - | - |
| cg05740632 | 0.020 (0.025) | 0.431 | 0.014 (0.026) | 0.582 | 0.039 (0.026) | 0.128 | 0.125 | 0.379 |  | - | - |
| cg10400937 | 0.011 (0.025) | 0.649 | 0.037 (0.025) | 0.142 | 0.022 (0.026) | 0.389 | 0.243 | 0.266 |  | - | - |
| cg26334131 | 0.009 (0.025) | 0.713 | 0.049 (0.025) | 0.054 | 0.028 (0.026) | 0.275 | 0.130 | 0.249 |  | - | - |
| cg11630610 | -0.040 (0.025) | 0.114 | -0.041 (0.025) | 0.106 | -0.059 (0.025) | 0.020 | 0.350 | 0.137 |  | - | - |
| cg02591826 | 0.006 (0.025) | 0.822 | -0.026 (0.025) | 0.297 | 0.009 (0.026) | 0.719 | 0.251 | 0.197 |  | - | - |
| cg24792179 | -0.007 (0.025) | 0.792 | 0.003 (0.026) | 0.921 | 0.013 (0.026) | 0.628 | 0.278 | 0.636 |  | - | - |
| cg01545454 | -0.038 (0.025) | 0.131 | -0.046 (0.025) | 0.069 | -0.027 (0.025) | 0.291 | 0.394 | 0.596 |  | - | - |
| cg19583211 | -0.033 (0.025) | 0.196 | -0.033 (0.026) | 0.190 | -0.007 (0.026) | 0.781 | 0.370 | 0.361 |  | - | - |
| cg13311494 | 0.006 (0.025) | 0.820 | 0.025 (0.025) | 0.310 | 0.016 (0.026) | 0.541 | 0.428 | 0.433 |  | - | - |
| cg08484100 | 0.019 (0.025) | 0.453 | -0.034 (0.025) | 0.184 | 0.007 (0.026) | 0.774 | 0.780 | 0.326 |  | - | - |
| cg08106661 | 0.022 (0.026) | 0.384 | -0.008 (0.027) | 0.764 | -0.020 (0.029) | 0.486 | 0.413 | 0.820 |  | - | - |
| cg10643850 | -0.041 (0.025) | 0.105 | -0.029 (0.025) | 0.261 | 0.010 (0.026) | 0.708 | 0.606 | 0.427 |  | - | - |
| cg23398826 | -0.023 (0.025) | 0.351 | -0.031 (0.025) | 0.225 | -0.020 (0.026) | 0.444 | 0.733 | 0.598 |  | - | - |
| cg07219103 | -0.004 (0.025) | 0.886 | 0.015 (0.026) | 0.549 | -0.025 (0.027) | 0.350 | 0.700 | 0.856 |  | - | - |
| cg22794712 | 0.028 (0.025) | 0.278 | 0.018 (0.026) | 0.490 | 0.025 (0.026) | 0.344 | 0.893 | 0.935 |  | - | - |
| cg02386575 | -0.011 (0.025) | 0.649 | -0.008 (0.025) | 0.747 | -0.002 (0.025) | 0.928 | 0.681 | 0.824 |  | - | - |
| cg11754670 | 0.006 (0.025) | 0.815 | 0.011 (0.026) | 0.665 | -0.004 (0.026) | 0.884 | 0.773 | 0.752 |  | - | - |
| cg20302171 | -0.006 (0.025) | 0.806 | 0.007 (0.025) | 0.768 | 0.010 (0.026) | 0.712 | 0.457 | 0.903 |  | - | - |
| cg06358566 | 0.010 (0.025) | 0.697 | 0.024 (0.025) | 0.340 | 0.016 (0.026) | 0.538 | 0.951 | 0.899 |  | - | - |
| cg20562821 | -0.017 (0.026) | 0.518 | 0.003 (0.026) | 0.908 | -0.042 (0.027) | 0.116 | 0.949 | 0.068 |  | - | - |
| cg05681643 | -0.014 (0.025) | 0.572 | 0.010 (0.025) | 0.699 | -0.001 (0.026) | 0.964 | 0.801 | 0.927 |  | - | - |

CpG = cytosine-phosphoguanine site; SE = standard error; SV = surrogate variable.

Effect size is for the comparison with quartile 1. Multivariable model was adjusted for: age, sex, education level, marital status, smoking, drinking, physical activity, diet score, body mass index, fasting time, study area, and batch or SVs. Mediation analysis was performed for significant CpGs (P for trend < 0.05) only.