

**Table S1: Single haplotype analysis on body-mass index (kg/m<sup>2</sup>) in the EPIC-Potsdam subsample (n=2,122) with adjustment for sex, age at baseline, educational attainment, occupational activity, sports activity, smoking habits, alcohol intake, energy intake, fat intake, and fruit and vegetable intake.**

| Gene    | Haplotype     | Frequency | Beta  | Std.err | p-value |
|---------|---------------|-----------|-------|---------|---------|
| LEPR    | 221           | 0.256     | -0.16 | 0.14    | 0.2614  |
|         | 112           | 0.161     | -0.11 | 0.17    | 0.5106  |
|         | 111           | 0.374     | 0.04  | 0.13    | 0.7728  |
|         | 121           | 0.199     | 0.23  | 0.16    | 0.1409  |
| HSD11B1 | 111           | 0.830     | -0.18 | 0.16    | 0.2682  |
|         | 222           | 0.052     | -0.01 | 0.28    | 0.9853  |
|         | 212           | 0.064     | 0.23  | 0.25    | 0.3642  |
|         | 211           | 0.053     | 0.30  | 0.28    | 0.2876  |
| TBC1D1  | 1111112112111 | 0.055     | -0.46 | 0.30    | 0.1295  |
|         | 2112112112111 | 0.093     | 0.10  | 0.23    | 0.6557  |
| FABP2   | 22            | 0.259     | -0.22 | 0.14    | 0.1095  |
|         | 12            | 0.174     | -0.05 | 0.16    | 0.7808  |
|         | 11            | 0.566     | 0.20  | 0.12    | 0.1038  |
| ABCC8   | 212111        | 0.093     | -0.43 | 0.21    | 0.0460  |
|         | 121122        | 0.089     | -0.17 | 0.22    | 0.4330  |
|         | 122111        | 0.078     | -0.09 | 0.23    | 0.7062  |
|         | 111111        | 0.400     | 0.15  | 0.12    | 0.2212  |
|         | 112222        | 0.112     | 0.32  | 0.19    | 0.0939  |
| MC4R    | 11            | 0.765     | -0.34 | 0.14    | 0.0154  |
|         | 22            | 0.208     | 0.40  | 0.15    | 0.0062  |

1 = major allele, 2=minor allele