

Supplementary Table S2. Characteristics of mouse gut microbiota metagenome sequencing analysis. Mean values and standard deviation (SD) for every group are shown.

BL - C57BL/6 mice

DB – db/db mice

LDLR – Ldlr(-/-) mice

RCD – row chow diet

HFD – high fat diet

C5 – olivetol supplementation to a diet

| Animal group           | BL/RCD    |             |              | BL/HFD      |          |              |
|------------------------|-----------|-------------|--------------|-------------|----------|--------------|
| Feature                | Mean      | SD          | N of samples | Mean        | SD       | N of samples |
| forward sequence count | 120068,5  | 30077,18654 | 10           | 108843,1    | 17064,21 | 10           |
| reverse sequence count | 120068,5  | 30077,18654 | 10           | 108843,1    | 17064,21 | 10           |
| Taxa_S                 | 1663,9    | 177,7941694 | 10           | 1296,7      | 123,0357 | 10           |
| Animal group           | BL/RCD+C5 |             |              | BL/HFD+C5   |          |              |
| Feature                | Mean      | SD          | N of samples | Mean        | SD       | N of samples |
| forward sequence count | 108320,9  | 8117,759735 | 9            | 99259,2     | 17672,14 | 10           |
| reverse sequence count | 108320,9  | 8117,759735 | 9            | 99259,2     | 17672,14 | 10           |
| Taxa_S                 | 1494,111  | 169,6875396 | 9            | 1283,4      | 84,03994 | 10           |
| Animal group           | DB/RCD    |             |              | DB/RCD+C5   |          |              |
| Feature                | Mean      | SD          | N of samples | Mean        | SD       | N of samples |
| forward sequence count | 116371    | 8139,8291   | 10           | 124596,5    | 31921,57 | 9            |
| reverse sequence count | 116371    | 8139,8291   | 10           | 124596,5    | 31921,57 | 9            |
| Taxa_S                 | 1141,8    | 112,6427983 | 10           | 1232,222    | 243,759  | 9            |
| Animal group           | LDLR/RCD  |             |              | LDLR/RCD+C5 |          |              |
| Feature                | Mean      | SD          | N of samples | Mean        | SD       | N of samples |
| forward sequence count | 143189    | 20253,58531 | 10           | 102636,7    | 10937,48 | 10           |
| reverse sequence count | 143189    | 20253,58531 | 10           | 102636,7    | 10937,48 | 10           |
| Taxa_S                 | 1042,4    | 140,3782193 | 10           | 703,9       | 141,4838 | 10           |