**Supplementary Table 2**: Associations of genetic instruments for osteoporosis with NAFLD.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | SNP-exposure (Osteoporosis) | SNP-outcome (NAFLD) |
| SNP | Nearby Gene | Sample size | EA | OA | EAF | Beta | SE | P | Beta | SE | P |
| rs10023907 | MEPE |  | T | C | 0.00028  | 0.00193  | 0.00028  | 3.10027E-12 | 0.00355  | 0.01742  | 0.83840  |
| rs11088458 | LINC01700 |  | G | A | 0.00029  | 0.00162  | 0.00029  | 2.99999E-09 | -0.00536  | 0.01763  | 0.76120  |
| rs1414660 | FMN2 |  | T | C | 0.00033  | -0.00193  | 0.00033  | 6.80002E-09 | 0.00425  | 0.02169  | 0.84480  |
| rs1586274 | NA | 778,614 | G | A | 0.00026  | 0.00179  | 0.00026  | 1.10002E-11 | 0.01422  | 0.01625  | 0.38140  |
| rs188810925 | RP11-209M4.1 | 778,614 | A | G | 0.00050  | -0.00323  | 0.00050  | 8.49963E-11 | -0.04274  | 0.02876  | 0.13730  |
| rs2566755 | WLS | 778,614 | C | T | 0.00032  | -0.00221  | 0.00032  | 3.29989E-12 | -0.00856  | 0.02085  | 0.68140  |
| rs34102936 | STARD3NL | 778,614 | A | G | 0.00027  | -0.00202  | 0.00027  | 3.29989E-14 | 0.02077  | 0.01651  | 0.20850  |
| rs3779381 | WNT16 | 778,614 | G | A | 0.00030  | -0.00258  | 0.00030  | 6.59933E-18 | 0.02614  | 0.01857  | 0.15920  |
| rs442115 | RP11-944L7.4 | 778,614 | G | T | 0.00026  | -0.00186  | 0.00026  | 1.69981E-12 | 0.00312  | 0.01633  | 0.84840  |
| rs56312530 | LRP5 | 778,614 | A | G | 0.00035  | 0.00223  | 0.00035  | 2.30001E-10 | -0.01886  | 0.02423  | 0.43620  |
| rs6684375 | LRP5 | 778,614 | T | C | 0.00034  | -0.00224  | 0.00034  | 6.70039E-11 | -0.01020  | 0.02351  | 0.66430  |
| rs6713409 | RP11-415K20.2 | 778,614 | A | T | 0.00028  | -0.00157  | 0.00028  | 2.80001E-08 | -0.01860  | 0.01743  | 0.28580  |
| rs74777717 | RP5-877J2.1 | 778,614 | G | C | 0.00051  | 0.00318  | 0.00051  | 3.89996E-10 | -0.07779  | 0.03448  | 0.02408  |
| rs851974 | P11-15G8.1 | 778,614 | A | G | 0.00027  | 0.00157  | 0.00027  | 4.09996E-09 | -0.01899  | 0.01643  | 0.24780  |
| rs9482772 | RSPO3 | 778,614 | C | T | 0.00026  | -0.00152  | 0.00026  | 7.90005E-09 | 0.04278  | 0.01630  | 0.00868  |
| rs9594738 | RP11-413N19.2 | 778,614 | T | C | 0.00026  | 0.00217  | 0.00026  | 1.20005E-16 | -0.00425  | 0.01622  | 0.79320  |

***P* value < 5×10-8 for reporting genome-wide significance. Abbreviations: EA, effect allele. OA, other allele, EAF effect allele frequency. MR, Mendelian randomization. SE, standard error; SNP, single nucleotide polymorphism. NAFLD, non-alcoholic fatty liver disease.**