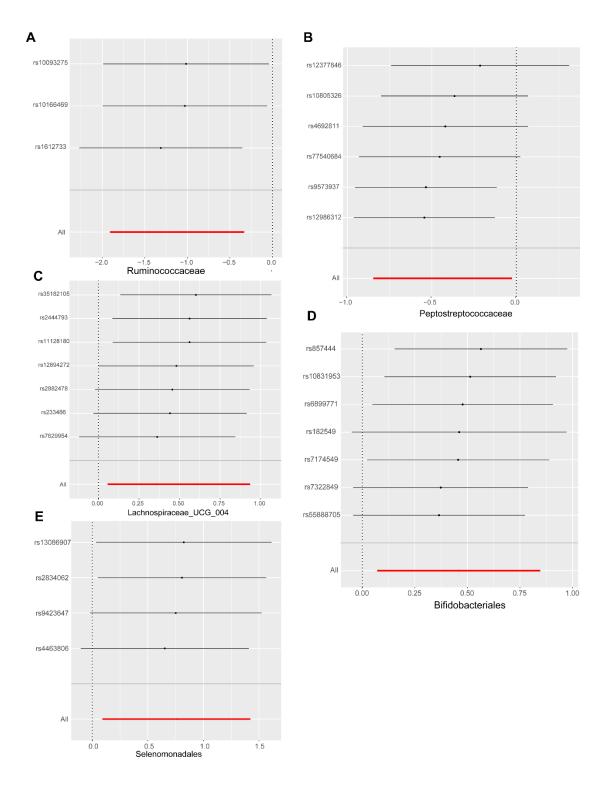


**Supplementary Figure 1.** Scatter plots of the MR estimates for the significant causality of five gut microbiota taxa and the risk of PBC. (A-E) The potential causal effect of five gut microbiota taxa on PBC. The lines implying positive correlations moved diagonally upward from left to right, indicating a facilitative effect of gut microbiota on PBC. The horizontal and vertical lines indicated each correlation's 95% confidence interval. The lines implying negative correlations move diagonally downward from left to right, indicating the inhibitory effect of gut microbiota on PBC. (MR, Mendelian randomization; SNPs, single nucleotide polymorphisms).



**Supplementary Figure 2.** Leave-one-out plots for the causal association between gut microbiota and PBC.