

**Supplementary Figure 3.** Mediation effect of homocysteine (Hcy) in the association between MTHFR C677T genotype and serum 25(OH)D levels. The total effect of C677T genotype on serum 25(OH)D levels consisted of direct and indirect effects. Models were adjusted for age, body mass index, AMH, type of infertility, causes of infertility, hemoglobin, and season of blood collection. a was an estimate of each unit increase in Hcy for CT or TT compared with CC, b was an estimate of serum 25(OH)D levels for each unit increase in Hcy. CC, wild type; CT, heterozygous type; TT, homozygous type; IE, indirect effect; DE, direct effect; TE, total effect; PM, proportion mediated. The dotted line stands for the direct effect was not significant.