**Fig. S1** Changes in the ratio of (a) soil organic carbon to total nitrogen (soil C:N), (b) microbial biomass carbon to microbial biomass nitrogen (microbial C:N), (c) microbial biomass carbon to microbial biomass phosphorus (microbial C:P), (d) microbial biomass nitrogen to microbial biomass phosphorus (microbial N:P) under different degrees of soil coarseness: 0% sand addition, (C0), 10% (C10), 30% (C30), 50% (C50), and 70% (C70) for 0-10 cm soil layer. Data represent mean ±standard error (n=6). Letters indicate significant differences among treatments (lowercase letters).
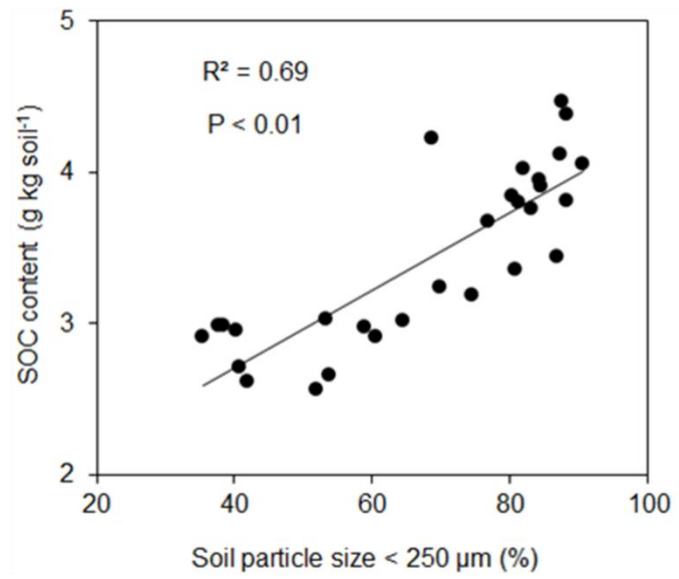
**Fig. S2** Correlation between soil particle size of < 250 μm (%) and soil organic carbon

(SOC) content.