

Figure S1. The blood glucose level in the DM group was higher than that in the NDM group. The blood glucose levels in the DM and NDM groups were compared.  $P < 0.0001$ , Student's t-test. DM, colorectal cancer tissues from patients with T<sub>2</sub>DM; NDM, colorectal cancer tissues from patients without T<sub>2</sub>DM. T<sub>2</sub>DM, type 2 diabetes mellitus.

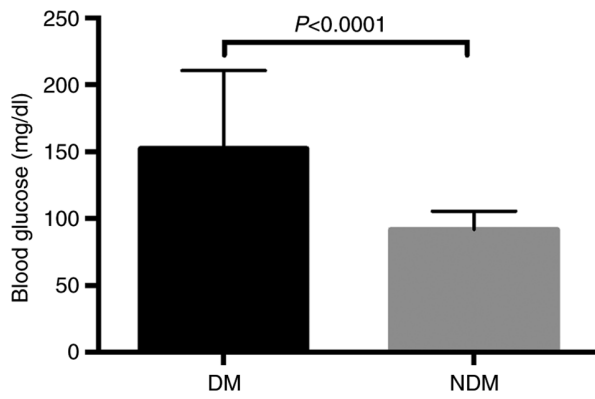


Figure S2. TMG treatment in high glucose condition induced  $\beta$ -catenin and SNAIL. A human colon cancer cell line, LoVo cells were cultured in normal (5 mM glucose) or high glucose (25 mM glucose) conditions and incubated with 1  $\mu$ M TMG for 36 h. The cells were lysed and subjected to western blot analyses and probed with (A) anti-*O*-GlcNAc, (B)  $\beta$ -catenin and (C) SNAIL antibodies. The densitometric analyses were performed using each picture with ImageJ software (A and B). The lysates were also co-immunoprecipitated with anti- $\beta$ -catenin, followed by probing with anti-*O*-GlcNAc antibody and anti- $\beta$ -catenin antibodies to analyze *O*-GlcNAcylation of  $\beta$ -catenin (D).  $\beta$ -actin was used for loading control of the lysates subjected to co-immunoprecipitation and normalization for densitometric analyses (A-D). \* $P < 0.05$ , Tukey's test. TMG, thiamet G.

