



**Supplementary Fig. 2.** Hematoxylin-eosin (HE) staining highlights pathological changes in the islet tissues of gestational diabetes mellitus (GDM) mice following different treatments. (A) Pathological changes of islet tissues in control and GDM mice observed using HE staining. (B) Pathological changes of islet tissues in GDM mice injected with nanoparticles (NPs) expressing negative control (NC) inhibitor or miR-328-3p inhibitor observed using HE staining. (C) Pathological changes of islet tissues in GDM mice injected with NPs expressing miR-328-3p mimic, overexpression (oe)-sterol regulatory element binding protein 2 (SREBP-2) or both observed using HE staining. (D) Pathological changes of islet tissues in GDM mice overexpressing long non-coding RNAs (lncRNA) taurine upregulated gene 1 (TUG1) observed using HE staining.