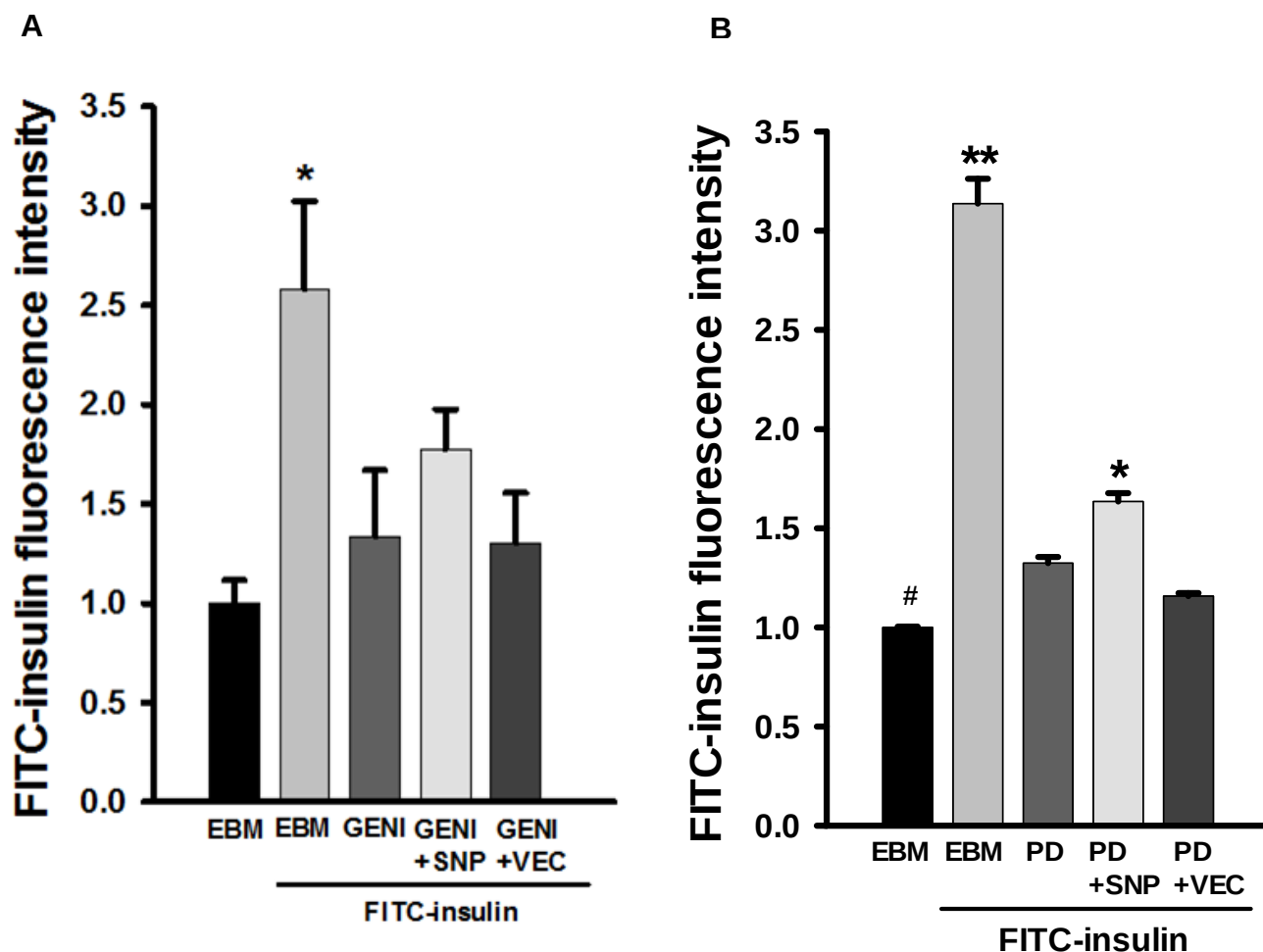


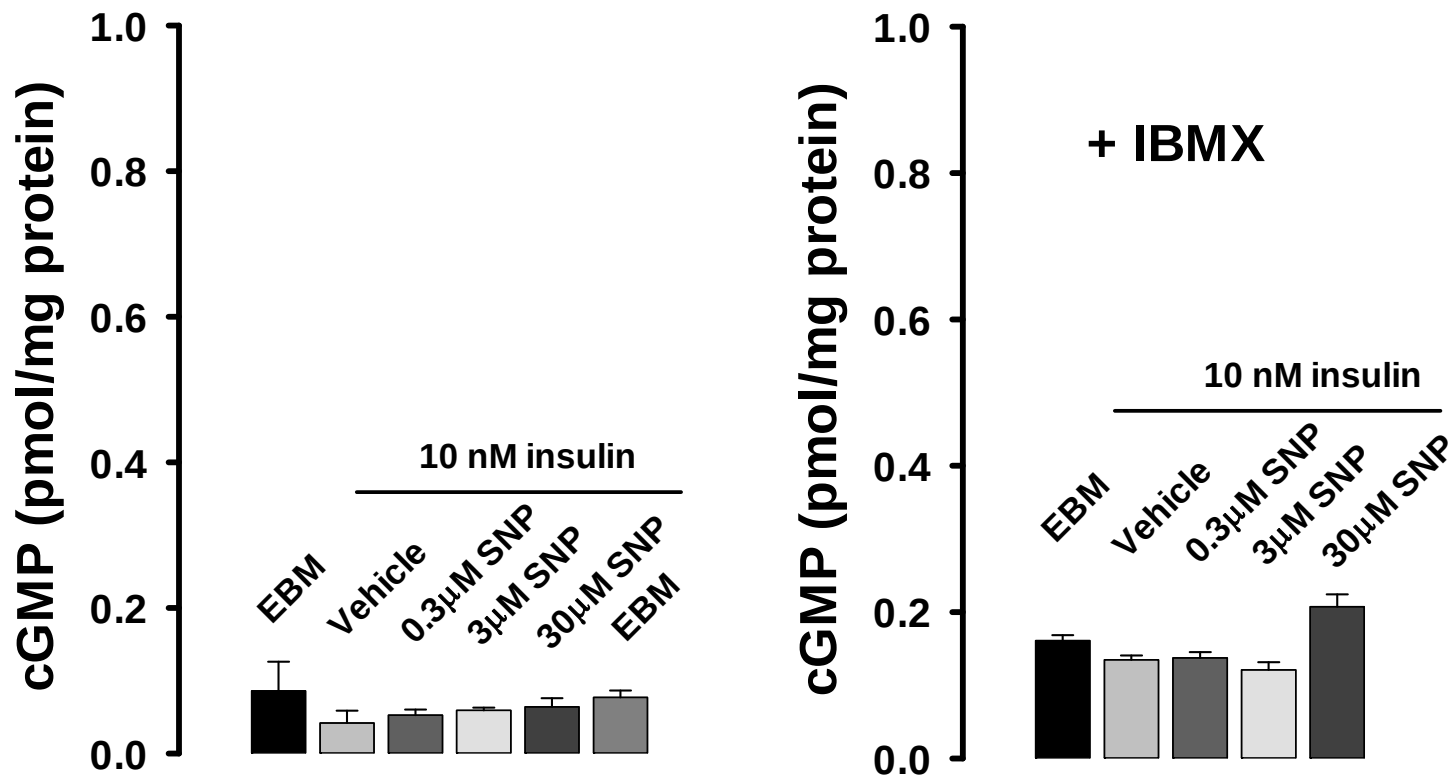
## SUPPLEMENTARY DATA

**Supplementary Figure 1.** Effects of SNP on genistein or PD98059-induced inhibition of FITC-insulin uptake. bAECs were serum-starved for 6 h, then pretreated with either 50  $\mu$ M PD 98059 (PD) or 50  $\mu$ mol/L genistein (GENI) for 30 min followed by 50 nmol/L FITC-insulin  $\pm$  0.3  $\mu$ mol/L SNP or vehicle for 30 min before fixation and immunocytochemical staining. **A and B**, quantitative analysis of cellular insulin uptake for genistein (A) or PD 98059 treatment (n=5). \*  $p < 0.05$  compared to EBM or GENI+FITC-insulin or GENI+ vec (vehicle control) group but  $p > 0.05$  compared to GENI+SNP+FITC-insulin group (A); #, \*, \*\*  $p < 0.05$  compared to remain groups (B).



SUPPLEMENTARY DATA

**Supplementary Figure 2.** Intracellular cGMP level assay. bAECs were serum-starved for 6 h, pretreated with or without 200  $\mu\text{mol/L}$  isobutylmethylxanthine (IBMX) for 10 min, then treated with insulin plus either 0.3  $\mu\text{mol/L}$  or 3  $\mu\text{M}$  or 30  $\mu\text{mol/L}$  SNP or vehicle or EBM (basal culture medium) for 30 min before processed for cGMP level and protein level assay. No significant differences were found between groups ( $p>0.05$ ; one way ANOVA).



# SUPPLEMENTARY DATA

**Supplementary Figure 3.** Metabolic characteristics of the rats on either HFD or regular chow diet. A, the body weights; \* $p < 0.05$ . B, serum glucose concentrations. C, serum insulin concentrations; \* $p < 0.001$ . D, serum triglycerides (TG); # $p = 0.057$ .  $n = 4$  for each group.

