Figure S1. Lentivirus infection and verification of working efficiency. (A) Lentivirus working efficiency verified by reverse transcription-quantitative PCR in HGC-27 cells; (B) Lentivirus working efficiency verified by reverse transcription-quantitative PCR n NCI-N87 cells. (C) Lentivirus working efficiency verified by western blotting in HGC-27 cells. (D) Lentivirus working efficiency verified by western blotting in NCI-N87 cells; (E) Representative immunofluorescence results assessing the effect of GPR176 expression regulation on the EMT pathway. sh-, short hairpin; NC, negative control; EMT, epithelial-mesenchymal transition. Statistical analysis was performed using and unpaired Student's t-test. $^{**}P<0.01$.

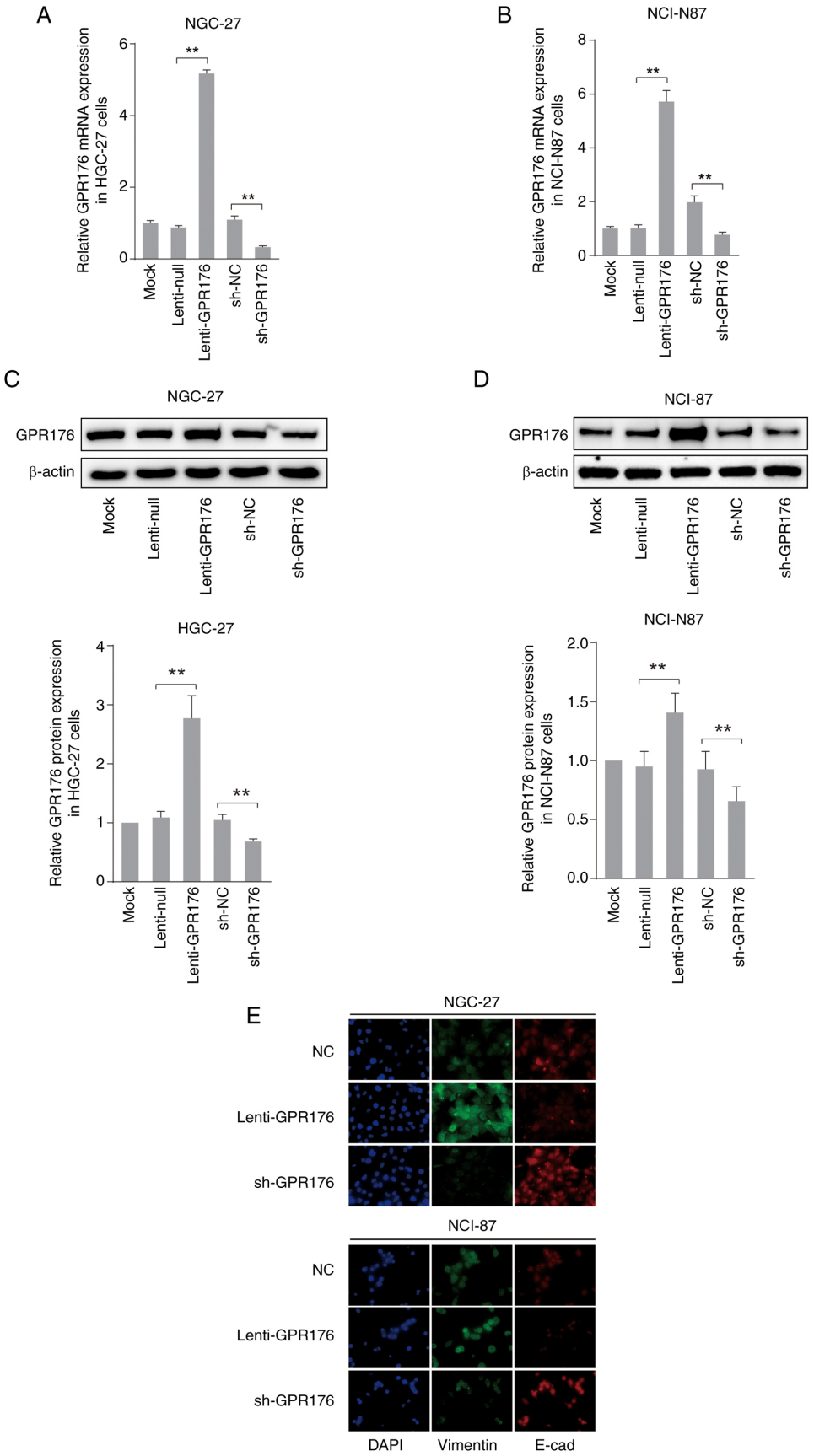

Figure S2. Quantitative bar graph of protein expression levels of EMT pathway genes after GPR176 expression regulation, corresponding to Fig. 4D. (A) Expression levels of EMT pathway proteins in HGC-27 cells after upregulation and downregulation of GPR176 expression levels. (B) Expression levels of EMT pathway proteins in NCI-N87 cells after upregulation and downregulation of GPR176 expression levels. EMT, epithelial-mesenchymal transition; sh-, short hairpin; NC, negative control. Statistical analysis was performed using unpaired Student's t-test. $^{**}P<0.01$.

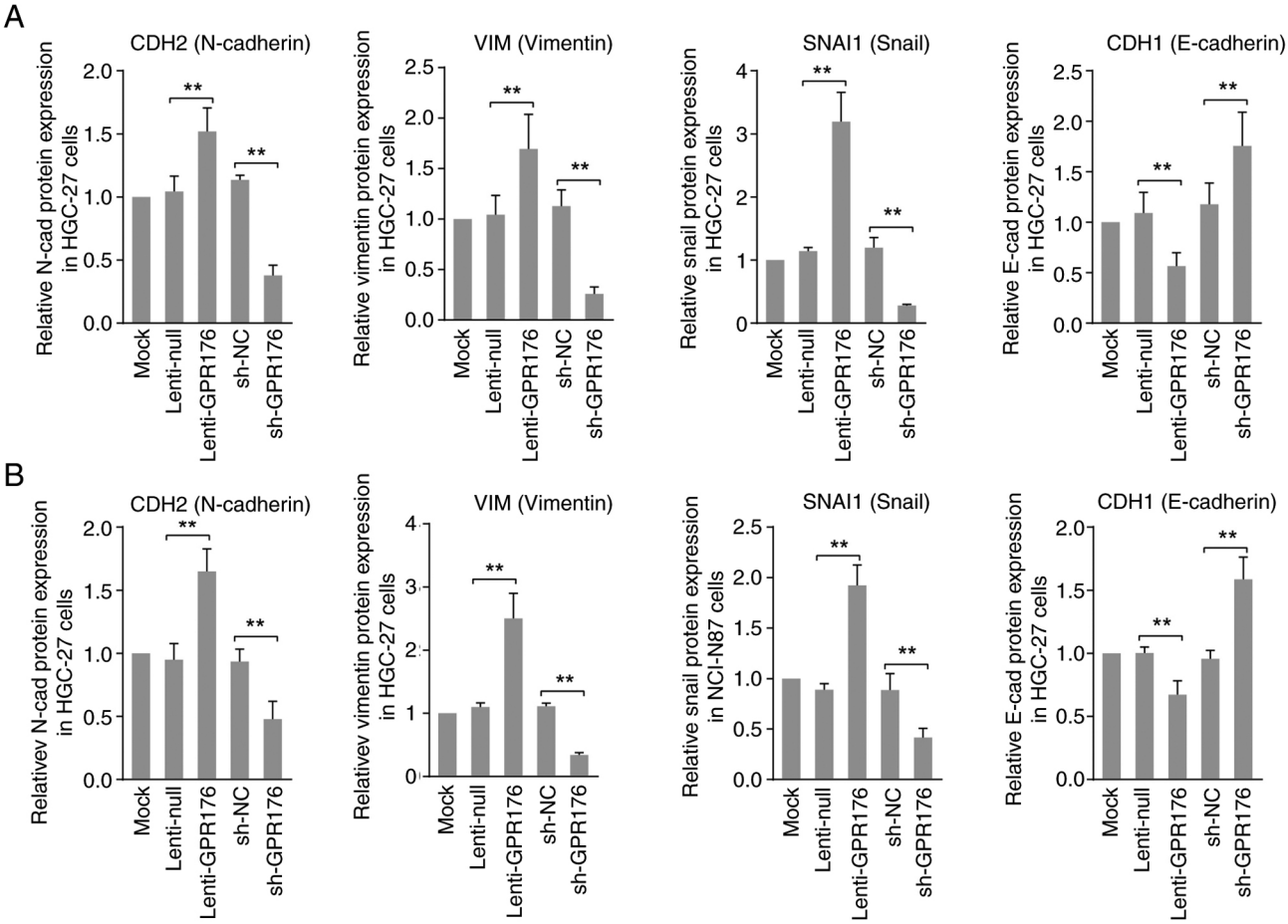

Figure S3. Quantitative bar graphs of protein expression levels and phosphorylation levels of EMT pathway and PI3K/AKT/mTOR pathway proteins after GPR176 and PIP5K1A expression regulation, corresponding to Fig. 6A and B. (A) Bar graphs of protein expression levels and phosphorylation levels in the EMT pathway and PI3K/AKT/mTOR pathway in HGC-27 cells. (B) Bar graphs of protein expression levels and phosphorylation levels in the EMT pathway and PI3K/AKT/mTOR pathway in NCI-N87 cells. EMT, epithelial-mesenchymal transition; sh-, short hairpin; NC, negative control. Statistical analysis was performed using two-way ANOVA. $^{**}P<0.01$, $^{*}P<0.05$.

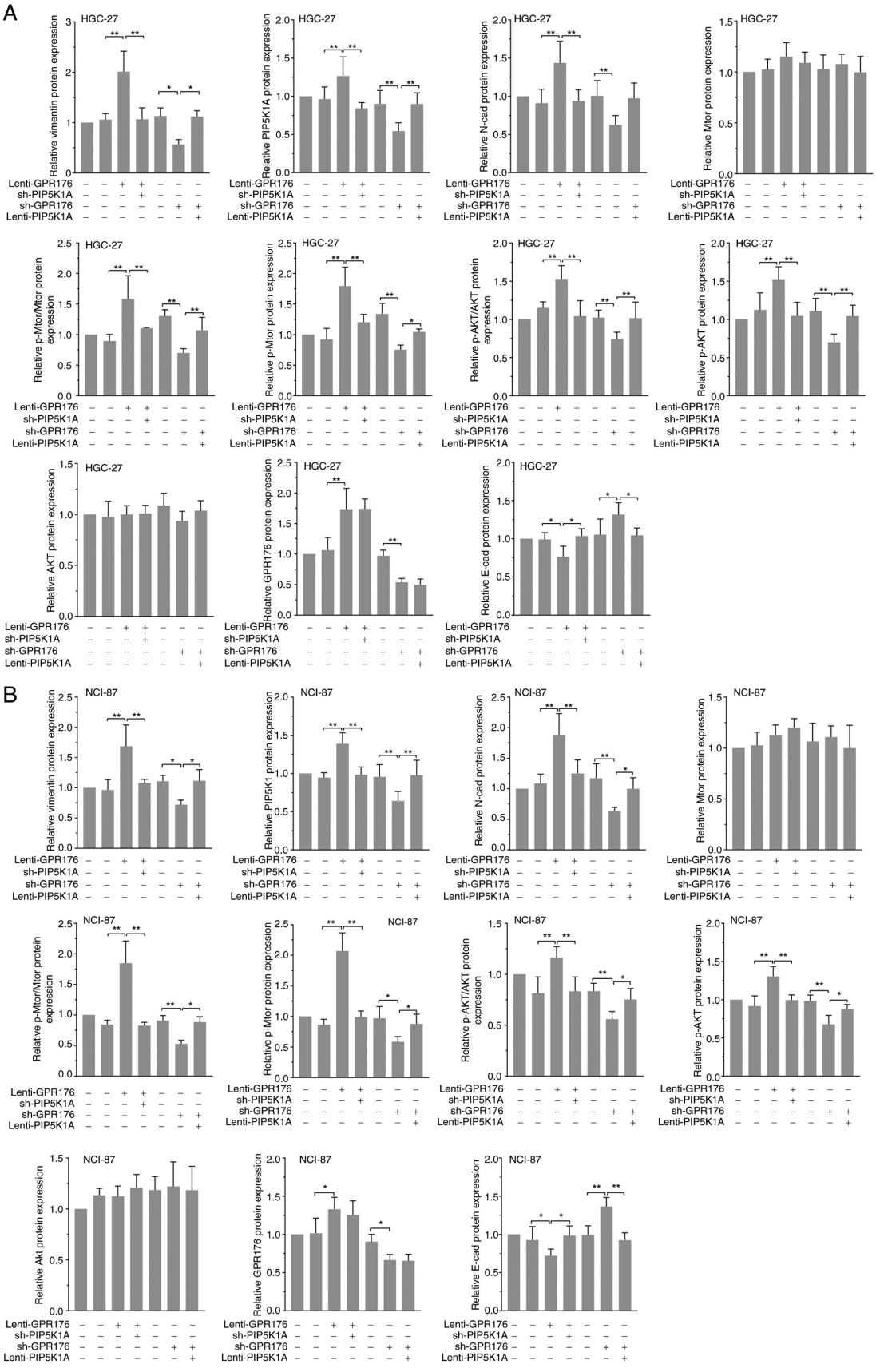

Figure S4. Quantification of protein expression levels and phosphorylation levels of EMT pathway and PI3K/AKT/mTOR pathway proteins after GPR176 expression regulation in graft tumors, corresponding to Fig. 9C. (A) Expression level of E-cad. (B) Expression level of N-cad. (C) Expression level of Vimentin. (D) Expression level of PIP5K1A. (E) phosphorylation level of GPR176. (F) phosphorylation level of AKT. (G) phosphorylation level of mTOR. sh-, short hairpin; NC, negative control. Statistical analysis was performed using unpaired Student's t-test. $^{**}P<0.01$, $^{*}P<0.05$.