



Figure S1. Efficiency of shRNA/siRNA/plasmid in this study. (A) Red fluorescence and bright field images of SiHa cell treated with ITGA3 lentivirus and corresponding control lentivirus, showing lentivirus transfection rate. Original magnification: $\times 100$; (B) Western blotting images showed the integrin $\alpha 3$ level change after treated with lenti-ITGA3 lentivirus. (C) Quantification of protein intensity in (B); (D) Western blotting images showed the integrin $\alpha 3$ level change after treated with integrin $\alpha 3$ plasmid. (E) Quantification of protein intensity in (D); (F) Western blotting images showed the FAK level change after treated with FAK siRNA. (G) Quantification of protein intensity in (F); (H) Integrin $\alpha 3$ and c-Src expression were showed by western blotting among groups Sh-Ctrl, Sh-Inte $\alpha 3$, Sh-Inte $\alpha 3$ +Empty vector and Sh-Inte $\alpha 3$ +c-Src plasmid, responding quantification of integrin $\alpha 3$ and c-Src protein intensity were presented in (I) and (J); (K) Integrin $\alpha 3$ and ERK expression were showed by western blotting among groups Sh-Ctrl, Sh-Inte $\alpha 3$, Sh-Inte $\alpha 3$ +Empty vector and Sh-Inte $\alpha 3$ +ERK plasmid, responding quantification of integrin $\alpha 3$ and ERK protein intensity were presented in (L) and (M); (N) Integrin $\alpha 3$, FAK, β -actin expression were showed by western blotting among groups Sh-Ctrl, Sh-Inte $\alpha 3$, Sh-Inte $\alpha 3$ +Empty vector and Sh-Inte $\alpha 3$ +FAK plasmid, responding quantification of integrin $\alpha 3$ and FAK protein intensity were presented in (O) and (P);

* = $P < 0.05$ vs. corresponding control; ** = $P < 0.01$; *** = $P < 0.001$; # = $P < 0.05$ vs. corresponding group (e.g. Sh-Inte α +empty vector vs Sh-Inte $\alpha 3$ +FAK plasmid), ## = $P < 0.01$, ### = $P < 0.001$; All the experiments were repeated three times with consistent results, and the representative images are shown.