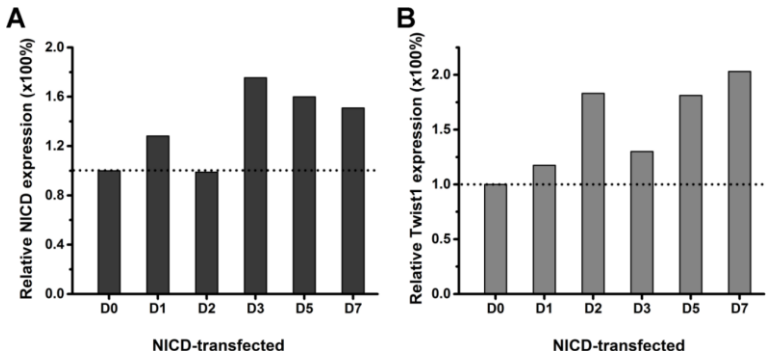
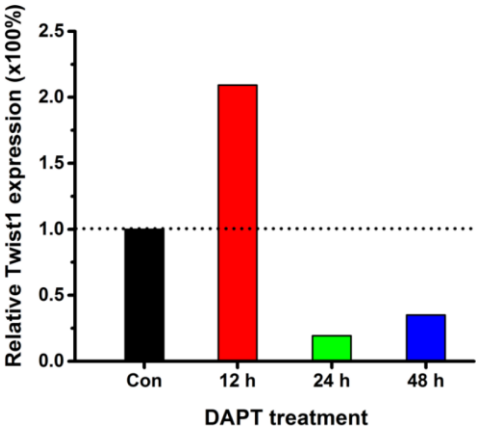
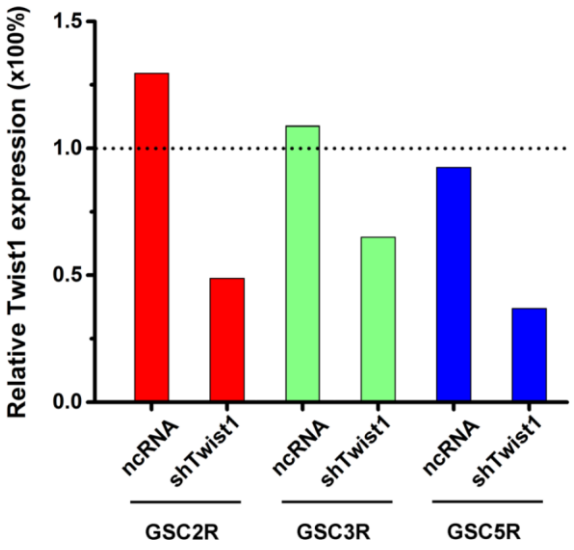
SUPPLEMENTARY FIGURES



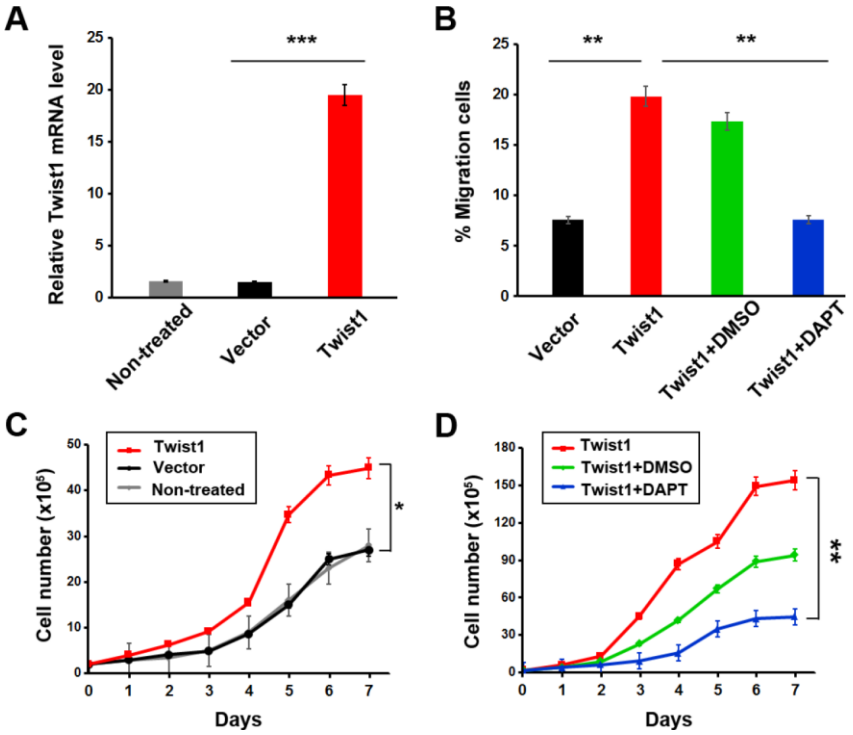
Supplementary Figure 1. Quantification of NICD (**A**) and Twist1 (**B**) protein levels by western blot in CSCs after NICD lentiviral infection. The image bands shown in Figure 3A were quantified by ImageJ software, and protein level in the cells without treatment was set as 100%.



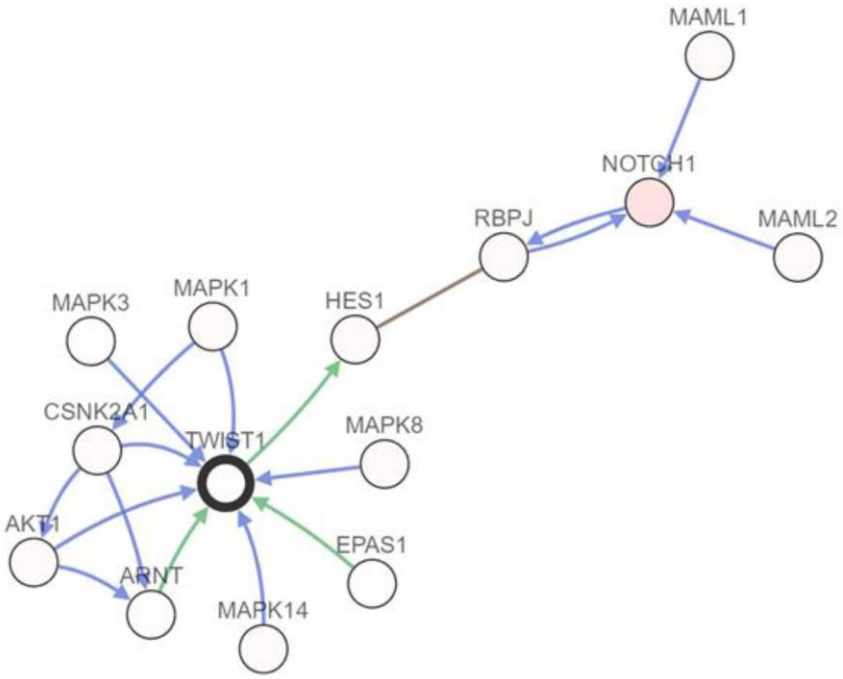
Supplementary Figure 2. Quantification of Twist1 protein level by western blot in CSCs after DAPT treatment. The image bands shown in Figure 3C were quantified by ImageJ software, and protein level in the cells without treatment was set as 100%.



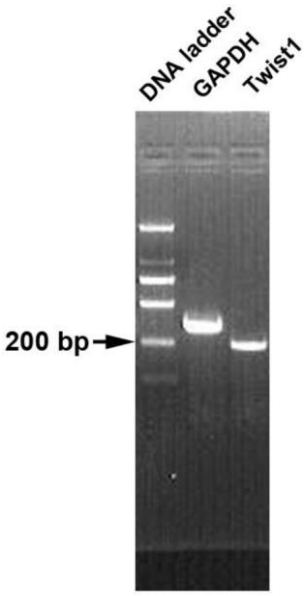
Supplementary Figure 3. Quantification of Twist1 protein levels by western blot in CSCs after shTwist1 treatment. The image bands shown in Figure 5B were quantified by ImageJ software, and protein level in the cells without treatment was set as 100%.



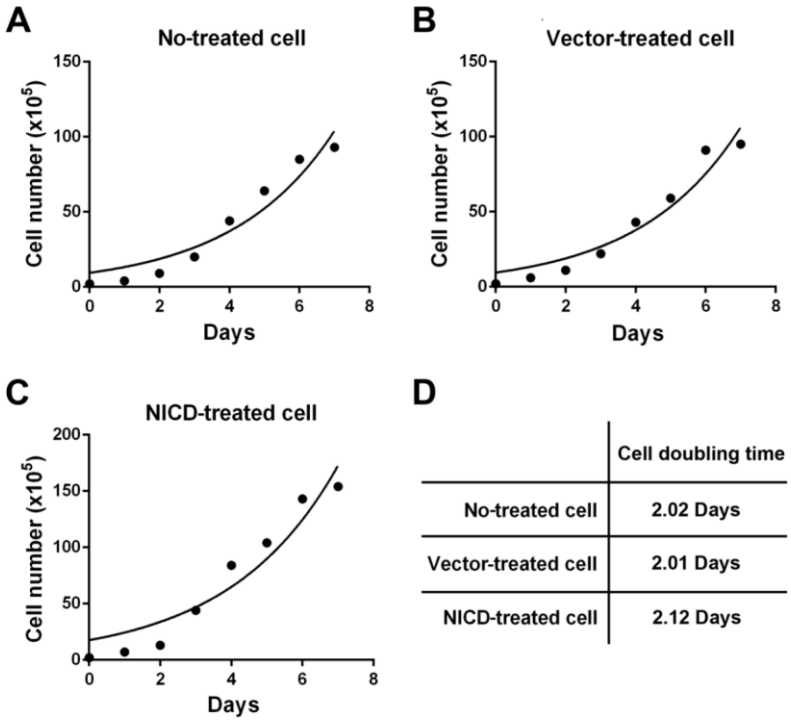
Supplementary Figure 4. The DAPT effect after upregulation of Twist1 on cell migration and proliferation ability in GSCs. The GSCs were transduced with Twist1 lentivirus, and then treated with Notch antagonist DAPT for 72 h. (**A**) The Twist1 mRNA level in GSCs after Twist1 lentiviral transduction. (**B**) The cell migration ability in GSCs was significantly increased after transduced with Twist1 lentivirus, while this promoting effect was significantly suppressed by Notch antagonist DAPT. (**C**) A significant enhancement of CSC proliferation ability was observed after upregulation of Twist1, while (**D**) this promoting effect was suppressed by Notch antagonist DAPT. Noting that DAPT was dissolved in dimethyl sulfoxide (DMSO), the cells treated with indicated concentration of DMSO were set as controls. Data are presented as means ± SD. *: $P < 0.05$, **: $P < 0.01$, ***: $P < 0.001$.



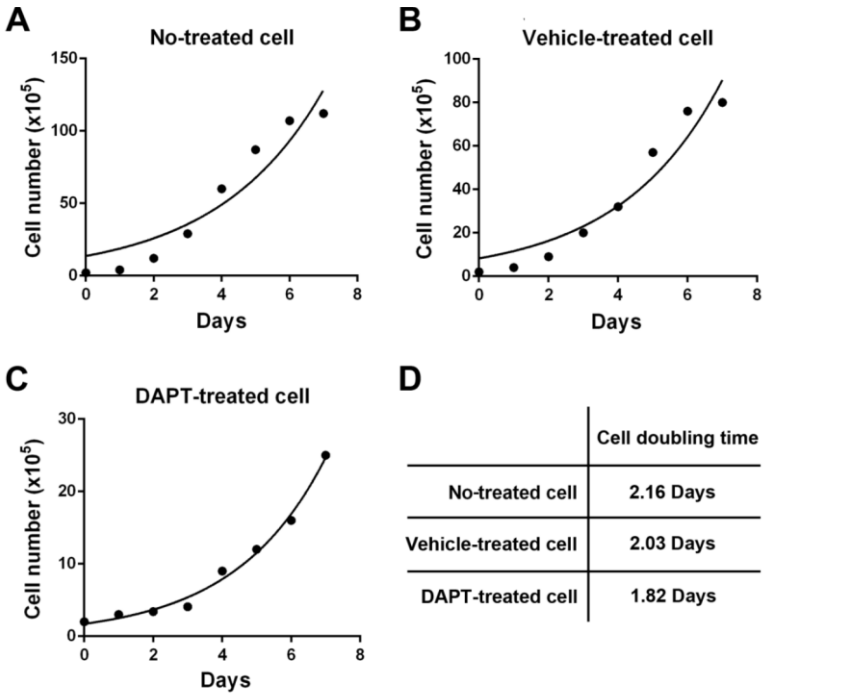
Supplementary Figure 5. The network of Twist1.



Supplementary Figure 6. The image of Twist1 and GAPDH DNA running on the gel after gel electrophoresis assay. Both Twist1 DNA, a length of 225 bp, and GAPDH, a length of 200 bp, are successfully separated by gel electrophoresis with good resolution. And only one band is shown in each lane after PCR processing.



Supplementary Figure 7. Measurement of cell doubling time after vector- or NICD lentivirus-transduction. Cells without treatment (**A**), or transduced with vector (**B**) or NICD lentivirus (**C**) were cultured for 7 days. Cells doubling time in each group (**D**) was calculated by using "Exponential equations" and "Exponential growth" patterns in GraphPad Prism 8s oftware. The cell growth curve was shown in Figure 4A.



Supplementary Figure 8. Measurement of cell doubling time after vehicle or DAPT treatment. Cells without treatment (**A**), or treated with vehicle (**B**) or Notch antagonist DAPT (**C**) were cultured for 7 days. Cells doubling time in each group (**D**) was calculated by using "Exponential equations" and "Exponential growth" patterns in GraphPad Prism 8 software. The cell growth curve was shown in Figure 4C.