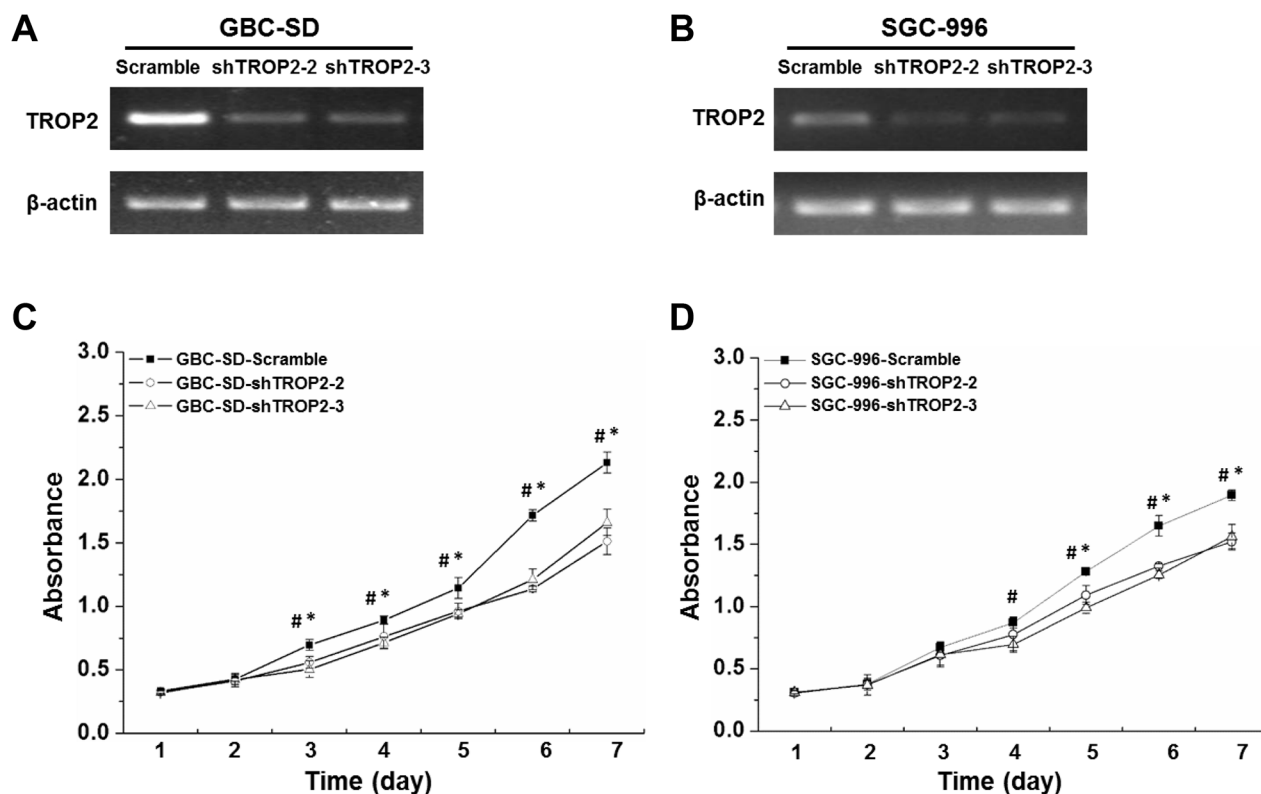
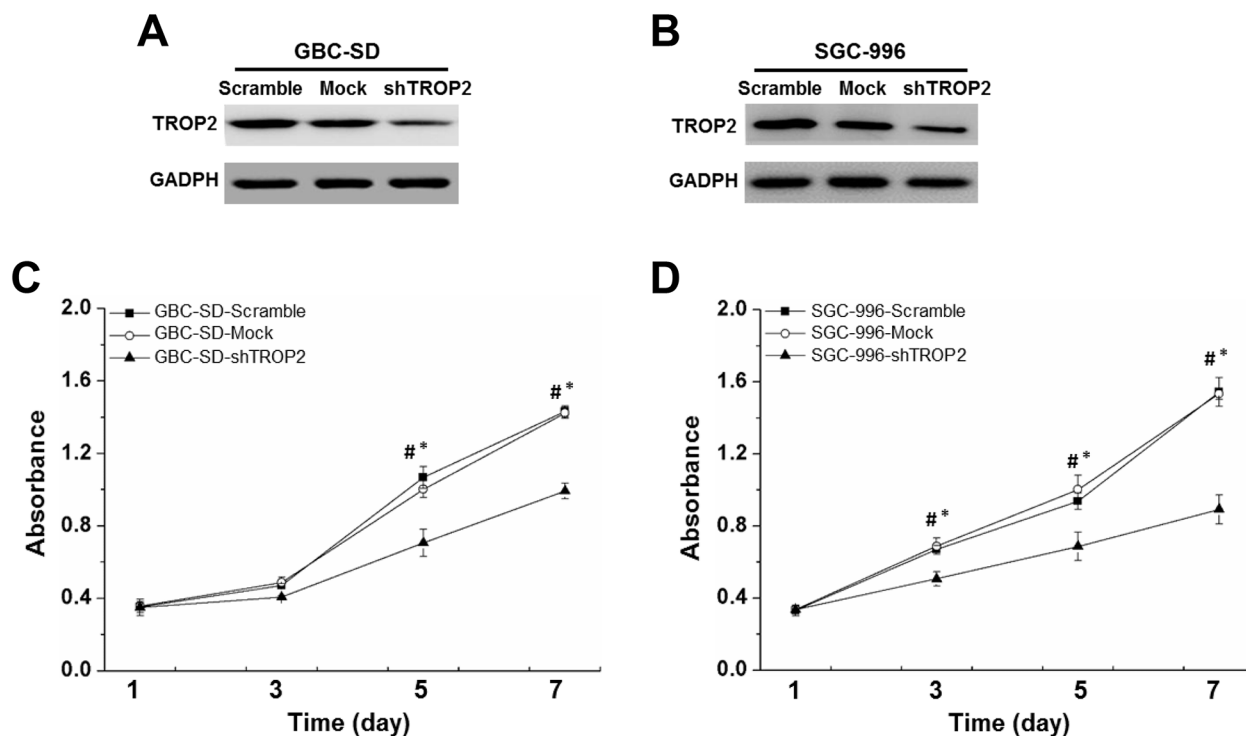


TROP2 promotes proliferation, migration and metastasis of gallbladder cancer cells by regulating PI3K/AKT pathway and inducing EMT

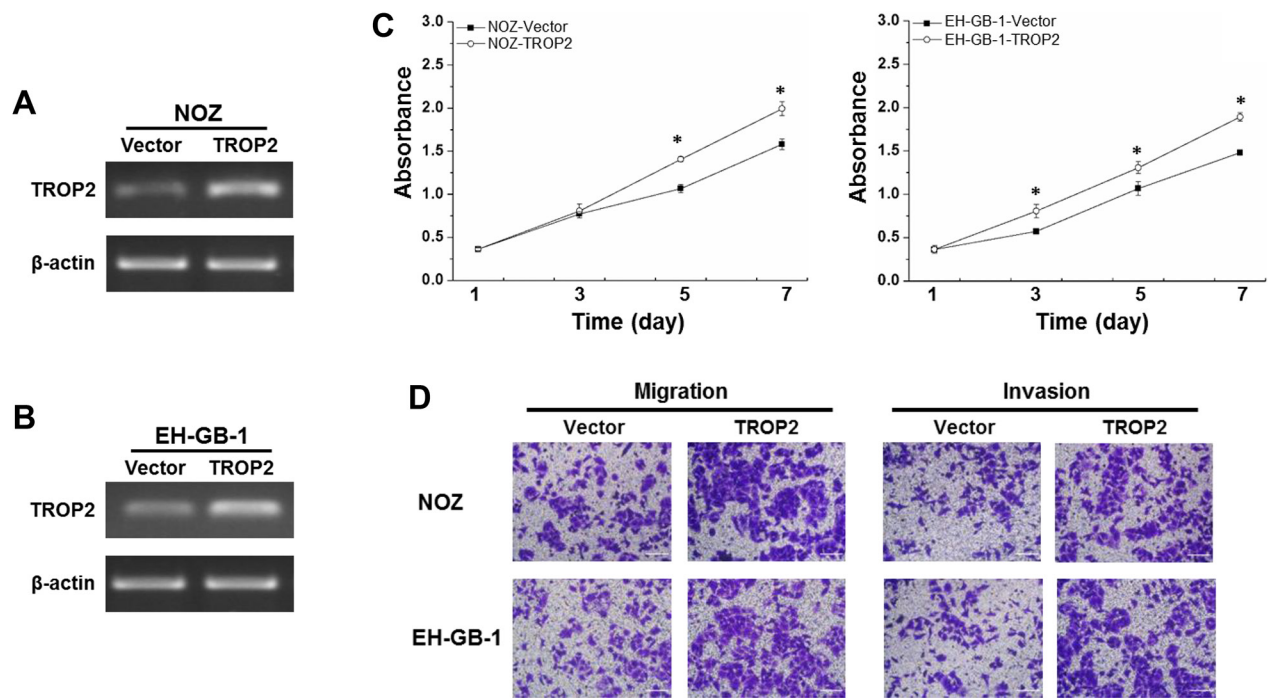
SUPPLEMENTARY FIGURES AND TABLES



Supplementary Figure 1: TROP2 knockdown using another two sh-RNAs. (A and B) TROP2 mRNA expression of GBC-SD and SGC-996 cells after RNA interference using shTROP2-2 and shTROP2-3. Cells were transfected with scramble sh-RNA as negative controls. Each experiment was repeated three times. (C and D) Growth curves of GBC-SD and SGC-996 cells after RNA interference using shTROP2-2 and shTROP2-3. Graphs, mean of three experiments; bars, S.D. * $P < 0.05$, shTROP2-2 group compared with the control group. # $P < 0.05$, shTROP2-3 group compared with the control group.



Supplementary Figure 2: Effects of empty vector on proliferation of GBC-SD and SGC-996 cells. (A and B) TROP2 protein expression of GBC-SD and SGC-996 cells after empty vector transfection. Cells were transfected with shTROP2 as positive controls. Each experiment was repeated three times. (C and D) Growth curves of GBC-SD and SGC-996 cells after empty vector transfection. Graphs, mean of three experiments; bars, S.D. * $P < 0.05$, empty vector group compared with the positive control group. # $P < 0.05$, scramble group compared with the control group.



Supplementary Figure 3: Effects of TROP2 on proliferation, migration and invasion of NOZ and EH-GB-1 cells. (A and B) TROP2 mRNA expression of NOZ and EH-GB-1 cells after plasmid transfection. Cells were transfected with empty vector as negative controls. **(C)** Growth curves of NOZ and EH-GB-1 cells after plasmid transfection. Graphs, mean of three experiments; bars, S.D. $*P < 0.05$, compared with the control group. **(D)** Microscope images of NOZ and EH-GB-1 cell migration and invasion after TROP2 overexpression. Each experiment was repeated three times.

Supplementary Table 1: Primer pairs

Primer pairs used for quantitative real-time PCR

<i>TROP2</i>	<i>Forward 5'-CCCCGCGCCTCATCCGCCGCGTC-3'</i> <i>Reverse 5'-CAAGCTCGGTTCTTTCTCAACTC-3'</i>
β -actin	<i>Forward 5'-CTGGAACGGTGAAGGTGACA-3'</i> <i>Reverse 5'-AAGGGACTTCCTGTAAACAATGCA-3'</i>
Primer pairs used for RT-PCR	
<i>TROP2</i>	<i>Forward 5'-TATTACCTGGACGAGATTCCCC3'</i> <i>Reverse 5'-CCCCGACTTTCTCCGGTTG-3'</i>
β -actin	<i>Forward 5'-GAGACCTTCAACACCCCAGCC-3'</i> <i>Reverse 5'-AGACGCAGGATGGCATGGG-3'</i>
shRNA	
Human gene	Sequence
shTROP2	<i>Forward</i> <i>5'-CACCGCCACCAACAAGATGACCGTTTCAAGACGACGGTCATCTTGTTGGTGGTTTTTTG-3'</i> <i>Reverse</i> <i>5'-AGCTCAAAAAACCACCAACAAGATGACCGTCGTCTTGAAACGGTCATCTTGTTGGTGGC-3'</i>
shTROP2-2	<i>Forward</i> <i>5'-CACCAGGGCGAGTCTCTATTCCATTCAAGACGTGGAATAGAGACTCGCCCTTTTTTTG-3'</i> <i>Reverse</i> <i>5'-AGCTCAAAAAAGGGCGAGTCTCTATTCCACGTCTTGAAATGGAATAGAGACTCGCCCT-3'</i>
shTROP2-3	<i>Forward</i> <i>5'-CACCGCACGCTCATCTATTACCTTTCAAGACGAGGTAATAGATGAGCGTGCTTTTTTTG-3'</i> <i>Reverse</i> <i>5'-AGCTCAAAAAAGCACGCTCATCTATTACCTCGTCTTGAAAGGTAATAGATGAGCGTGC-3'</i>
Scramble	<i>Forward</i> <i>5'-CACCGCACCTTTCAGCGTGCGGTAATACGCTCATCTATTAGACGAAGATGATTTTTTTG-3'</i> <i>Reverse</i> <i>5'-AGCTCAAAAAATTAATGAGCGTAATAGAAAAAGCACGCTCCTCGTCTTGAAAGGTGC-3'</i>