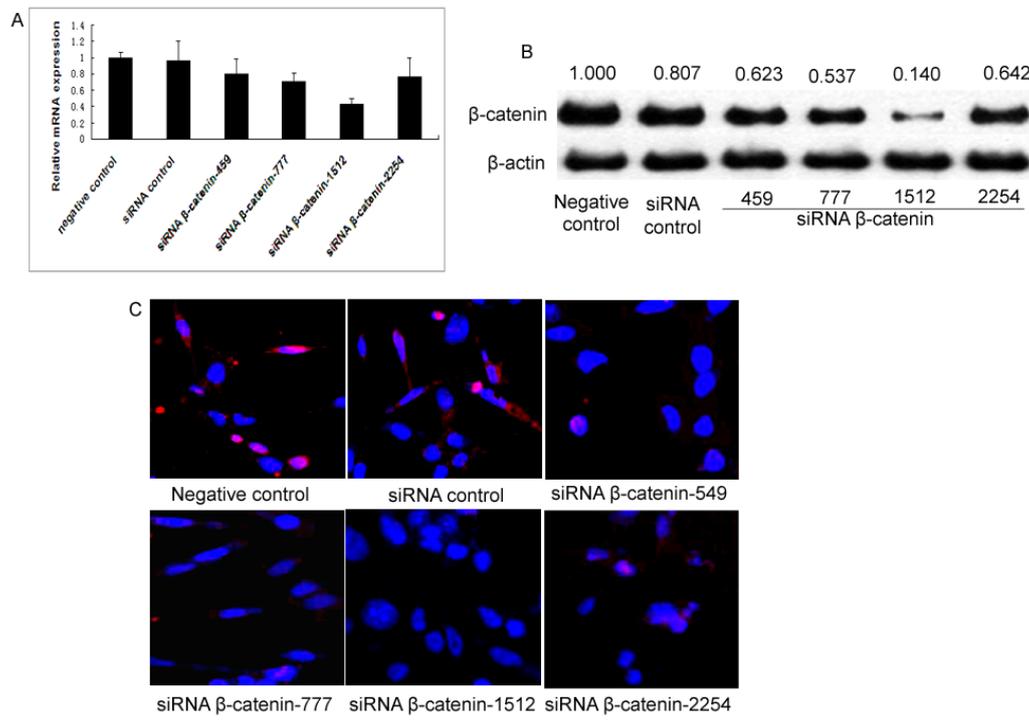


Supplementary figure legends.

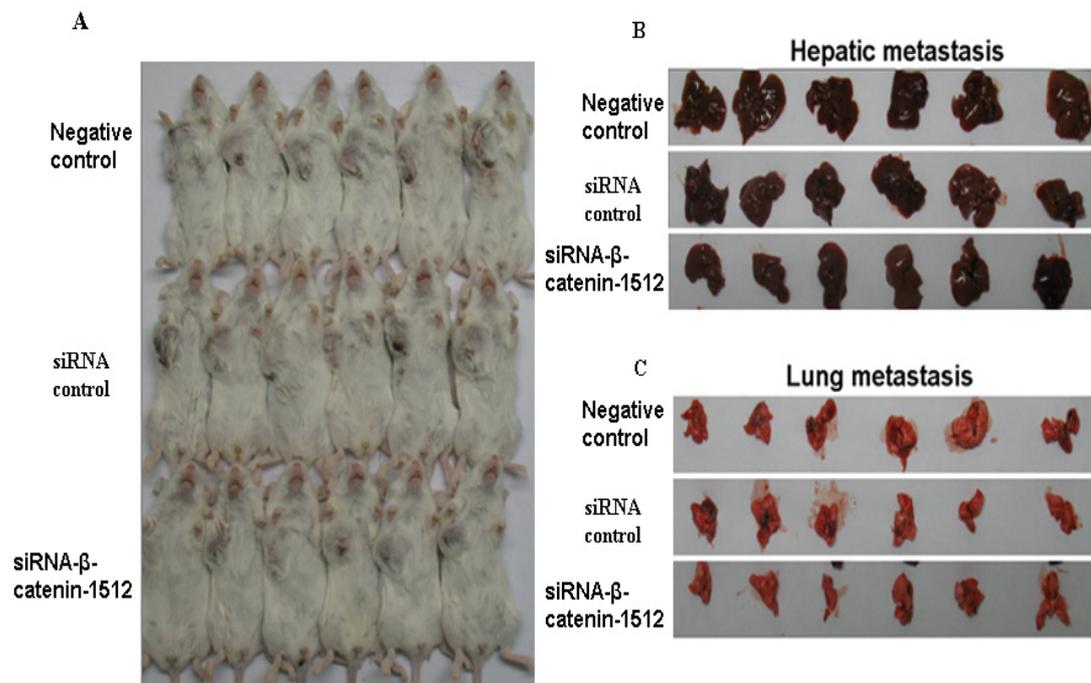
Supplementary Figure 1. Interference efficiency of different siRNAs on  $\beta$ -catenin expression in MA-891 cells. A. The expression levels of  $\beta$ -catenin were detected by real-time PCR in MA-891 cells treated with different siRNAs. B. Expression of  $\beta$ -catenin in MA-891 cells with different treatments as determined by Western blot analysis. The expression levels of  $\beta$ -catenin in MA-891 cells were determined by the gray values. C. Expression of  $\beta$ -catenin in MA-891 cells with different treatments assessed using immunofluorescent staining. Expression of  $\beta$ -catenin was the lowest in MA-891 cells treated with siRNA  $\beta$ -catenin-1512.

Supplementary Figure 2. **The gross pictures of TA2 mice with xenografts and the metastatic sites of liver and lung among negative control, siRNA control and siRNA  $\beta$ -catenin-1512 group.** A. The gross pictures of TA2 mice with xenografts in different groups. B. The gross pictures of hepatic metastasis in different groups. C. The gross pictures of lung metastasis in different groups.

# Supplementary Figure 1.



Supplementary Figure 2.



Supplementary table-1. Detail information of TA2 mice with SBC.

n	Days from birth to tumor initiation	Times of pregnancy	Sites of tumor	Size of tumor(cm <sup>3</sup> )	Type of tumor	Metastasis
1	243	6	the second mammary gland of the right forward limb	1.5×1.5×1	Intraductal carcinoma	No
2	291	7	the first and the fourth mammary gland of the right forward limb	1×1×1 and 1.8×2×1.2	Invasive ductal carcinoma	Lung metastasis
3	399	5	the second mammary gland of the left forward limb and the fourth of the left back limb	1.8×1.5×1.5 and 0.5×0.5×0.5	Invasive ductal carcinoma	Lung metastasis
4	255	2	the second mammary gland of the left forward limb	1.4×1.3×1	Invasive ductal carcinoma	Lung and liver metastasis
5	422	4	the second mammary gland of the left forward limb and the fourth of the right back limb	1.2×1×1 and 3×2.5×2	Invasive ductal carcinoma	Liver metastasis
6	248	4	the first mammary gland of the left forward limb and the fourth of the right back limb	3×2.5×1 and 1.5×1×0.8	Invasive ductal carcinoma	Lung metastasis
7	245	3	the second mammary gland of the left forward limb	2×1.5×1	Invasive ductal carcinoma	No
8	254	2	the first mammary gland of the right forward limb	3×2.5×2	Invasive ductal carcinoma	Liver metastasis
9	212	4	the second mammary gland of the left forward limb	3×2×2	Invasive ductal carcinoma	Lung metastasis

Supplementary table-2. Oligonucleotides sequences of different  $\beta$ -catenin siRNAs.

different siRNAs	oligonucleotides sequences
$\beta$ -catenin-459 (sense)	5'- CACCUCCCAAGUCCUUUAUTT -3'
$\beta$ -catenin-459(antisense)	5'- AUAAAGGACUUGGGAGGUGTT -3'
$\beta$ -catenin-777(sense)	5'- CCAGGUGGUAGUUAUAAUAAATT-3'
$\beta$ -catenin-777(antisense)	5'- UUUAUUAACUACCACCUGGTT-3'
$\beta$ -catenin-1512(sense)	5'- GGGUCCGAUGAUUAAUAAUUTT -3'
$\beta$ -catenin-1512(antisense)	5'- AUUUUAUAUCAUCGGAACCCTT -3'
$\beta$ -catenin-2254(sense)	5'- GCUGUCCUAUUCGAAUGUTT -3'
$\beta$ -catenin-2254(antisense)	5'- ACAUUCGGAUAGGACAGCTT -3'
Negative control (sense)	5'- UUCUCCGAACGUGUCACGUTT -3'
Negative control (antisense)	5'- ACGUGACACGUUCGGAGAATT -3'