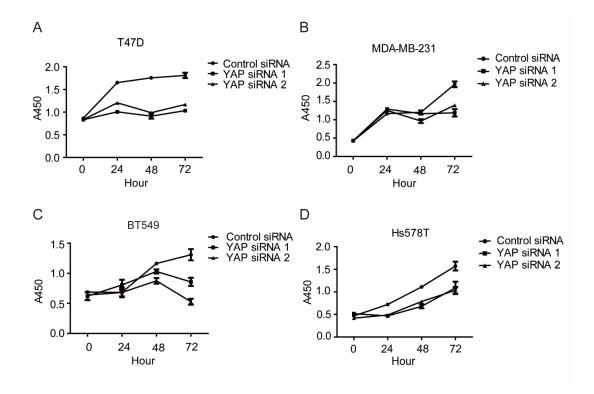


Supplementary Figure 1 YAP is overexpressed in tumors from TNBCs and ER $\alpha$ + breast cancer patients.

- A. Representative tumor samples from TNBC and ERα+ breast cancer patients with positive immunohistochemical staining for YAP.
- B. Majority of tumors from TNBC and ER $\alpha$ + breast cancer patients were YAP positive.



Supplementary Figure 2 YAP silencing inhibits proliferation of breast cancer cells.

ER $\alpha$ + breast cancer cells (T47D) and non-TNBC cells (MDA-MB-231, BT549, Hs578T) were seeded in 96-well plate at 50% confluency. On the next day, control siRNA or two YAP specific siRNA(YAP siRNA1, YAP siRNA2) were transfected into cells using RNAiMAX. CCK8 was added to wells at time points of 24, 48 or 72 hours. 2 hours after incubation, absorbance at 450nm was measured to indicate cell number. The proliferation curves shown that YAP knockdown significantly inhibits both ER $\alpha$ + breast cancer (A) and TNBC (B, C, D) cell proliferation.

| Patient No. | Breast cancer types | ER a | PR | Ki67% | Her-2 | YAP status* |
|-------------|---------------------|------|----|-------|-------|-------------|
| 1           | TNBC                | _    | _  | _     | -     | +           |
| 2           | TNBC                | _    | _  | 10%   | _     | +           |
| 3           | TNBC                | _    | -  | _     | -     | +           |
| 4           | TNBC                | _    | _  | 10%   | _     | +           |
| 5           | TNBC                | -    | -  | 30%   | -     | _           |
| 6           | TNBC                | _    | _  | _     | -     | +           |
| 7           | TNBC                | -    | -  | 50%   | -     | +           |
| 8           | $ER \alpha + BC$    | +    | 3+ | 20%   | +     | +           |
| 9           | $ER \alpha + BC$    | +    | 3+ | 15%   | _     | +           |
| 10          | $ER \alpha + BC$    | +    | +  | _     | _     | +           |
| 11          | $ER \alpha + BC$    | +    | _  | _     | +     | +           |
| 12          | $ER \alpha + BC$    | +    | 3+ | 10%   | _     | +           |
| 13          | $ER \alpha + BC$    | +    | 2+ | 30%   | +     | -           |
| 14          | $ER \alpha + BC$    | +    | +  | 80%   | +     | -           |
| 15          | $ER \alpha + BC$    | +    | +  | 5%    | +     | +           |
| 16          | $ER \alpha + BC$    | +    | 3+ | _     | +     | +           |
| 17          | $ER \alpha + BC$    | +    | +  | _     | -     | -           |
| 18          | $ER \alpha + BC$    | +    | 2+ | 10%   | +     | +           |
| 19          | $ER \alpha + BC$    | +    | 3+ | _     | +     | +           |
| 20          | $ER \alpha + BC$    | +    | +  | 30%   | +     | +           |
| 21          | $ER \alpha + BC$    | +    | 2+ | 5%    | -     | +           |
| 22          | $ER \alpha + BC$    | +    | 2+ | 20%   | +     | +           |
| 23          | $ER \alpha + BC$    | +    | 2+ | 30%   | +     | +           |
| 24          | $ER \alpha + BC$    | +    | 3+ | 10%   | -     | +           |
| 25          | $ER \alpha + BC$    | +    | +  | -     | +     | +           |

Supplementary Table 1 YAP is overexpressed in tumors from TNBC and ERa+ breast

\* Breast tumors are defined as YAP positive, if a breast tumor shows YAP overexpression compared to its paracancerous tissue using immunohistochemistry. cancer patients.

Primary breast cancers were collected from the female breast cancer patients operated in Nanjing General Hospital of Nanjing Military Command during the years 2008-2012. ER $\alpha$ , HER2, PR staining used during histopathologic examination were utilized to classify breast cancers into TNBC(n=7) and ER $\alpha$ + breast cancer (n=18). Max Vision<sup>TM</sup>

immunohistochemistry was applied to evaluate expression of YAP. YAP was overexpressed in both TNBC and  $ER\alpha$ + breast cancer patients.