

## Identification of TAZ-dependent breast cancer vulnerabilities using a chemical genomics screening approach

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## Supplemental Material

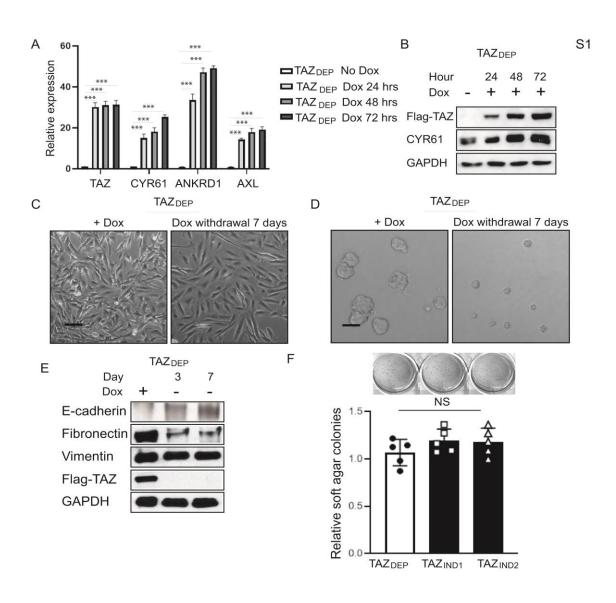


Figure S1 Dox withdrawal inhibits TAZ<sub>DEP</sub> cell proliferation

- **A.** qRT-PCR experiment detection of TAZ, CYR61, ANKRD1 and AXL expression in TAZ<sub>DEP</sub> cells in response to dox treatment. Relative expression was normalized by GAPDH expression. Unpaired two-tailed student t-test: \*\*\* p<0.001
- B. Immunoblotting detection of CYR61 in response to dox treatment in TAZ<sub>DEP</sub> cells. GAPDH was used as a loading control.

- C. Representative images of TAZ<sub>DEP</sub> cell morphology in a 2D culture under the condition of Dox treatment or Dox withdrawal. TAZ<sub>DEP</sub> cells grown in the presence of 2  $\mu$ g/ml dox. Scale bar=50  $\mu$ m.
- D. Representative images of TAZ<sub>DEP</sub> cell morphology in a 3D culture under the condition of Dox treatment or Dox withdrawal. TAZ<sub>DEP</sub> cells grown in the presence of 2  $\mu$ g/ml dox. Scale bar=50  $\mu$ m.
- E. Representative images and quantification of colony formation in soft agar of TAZ<sub>DEP</sub> and TAZ<sub>IND</sub> cells. Data are shown as the mean ± SD. Unpaired two-tailed student t-test: NS=not significant.

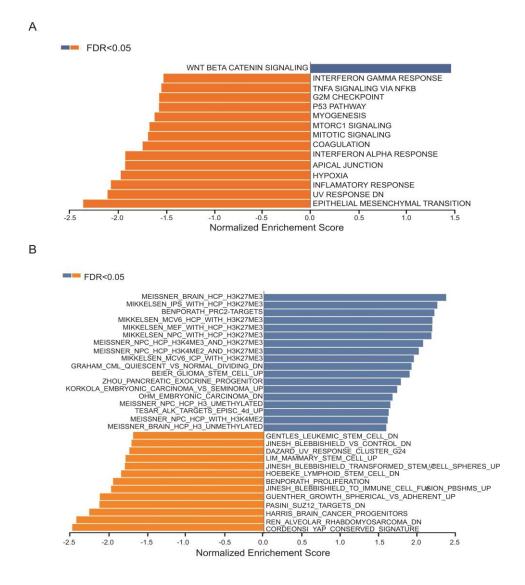


Figure S2 KEGG and GO term analysis of TAZDEP and TAZIND enriched pathways.

A. KEGG analysis for pathway alterations in TAZDEP and TAZIND cells.

B. GO term analysis identified enrichment biological processes in TAZDEP and TAZIND cells.

## TAZDEP enriched **Enrichment plot:** Enrichment plot: HALLMARK\_APICAL\_JUNCTION HALLMARK\_EPITHELIAL\_MESENCHYMAL\_TRANSITION NES=-3.97 (ES) 0.1 0.0 0.0 0.1 0.00 NES=-6.26 p = 0.0Enrichment score -0.05 p = 0.0-0.10 Enrichment -0.15 -0.2 -0.20 -0.3 -0.25 -0.4 t metric (PreRanked) metric (PreRanked) -20 Zero cross at 14354 -40 Ranked list of 08-Ranked list n 'na\_neg' (negatively correlated) 5.000 15.000 20.000 25,000 5.000 15,000 20,000 25,000 Rank in Ordered Dataset Rank in Ordered Dataset Enrichment profile — Hits Ranking metric scores Enrichment profile — Hits Ranking metric scores TAZIND enriched MIKKELSEN\_NPC\_HCP\_WITH\_H3K27ME3 Enrichment plot: BENPORATH\_PRC2\_TARGETS 0.25 NES=-6.9 NES=4.26 0.225 0.225 0.200 0.175 0.125 0.000 0.005 0.005 0.005 SE 0.20 p = 0.0p = 0.00 0.15 Enrichment s 0.000 Ranked list metric (PreRanked) Ranked list metric (PrePanked) -25 Zero cross at 14354 Zero cross at 14354 25,000 20,000 25,000 Rank in Ordered Dataset Rank in Ordered Dataset Enrichment profile — Hits — Ranking metric scores Enrichment profile - Hits

Figure S3 GSEA analysis of TAZ<sub>DEP</sub> and TAZ<sub>IND</sub> enriched pathways.

## **Supplemental Tables**

Table-S1 Genetically characterization of TAZ<sub>DEP</sub> and TAZ<sub>IND</sub> cells.

Table-S2 Differential expression gene changes of TAZIND versus TAZDEP cells.

Table-S3 List of ~600 compounds library.

Table-S4 List of TAZ<sub>DEP</sub> cells sensitive compounds.