

Supplementary Tables

Table S1. Number of probe sets affected by AZA treatment

| | MDA-MB-231 | | MCF7 | | MCF-12A | |
|-------------------|------------|------|------|------|---------|------|
| <i>P</i> values | UP | DOWN | UP | DOWN | UP | DOWN |
| <i>P</i> < 0.05 | 4284 | 3679 | 3993 | 4634 | 2981 | 2321 |
| <i>P</i> < 0.01 | 4253 | 3654 | 3903 | 4531 | 2868 | 2074 |
| <i>P</i> < 0.001 | 3832 | 3282 | 3044 | 3061 | 2081 | 1309 |
| <i>P</i> < 0.0001 | 2346 | 1823 | 1896 | 1329 | 985 | 389 |

*Numbers of probe sets under given *P* values were determined with class comparison tool of BRB-ArrayTools, which uses random variance model of unpaired t-test. 1.5-fold threshold was used.

Table S2. Comparison of significantly altered probe sets with the independent study GSE20713 Dataset

| Gene lists | Total ^a | Significantly Altered in GSE 20713 ^b |
|-----------------|--------------------|---|
| MCF7 UP | 1145 | 431 (37.6%) |
| MCF7 DOWN | 1876 | 799 (42.6%) |
| MDA-MB-231 UP | 913 | 250 (27.4%) |
| MDA-MB-231 DOWN | 1447 | 533 (36.8%) |
| COMMON UP | 198 | 106 (53.5%) |
| COMMON DOWN | 262 | 180 (68.7%) |

^a Total number of up/downregulated probe sets by AZA in indicated cell lines, but not in MCF12A, by 1.5-fold, at *P* < 0.05 in our set up. ^b Number (and percentage) of up/downregulated probe sets also in GSE20713 dataset, *P* < 0.05, by paired t-test.

Table S3. Cancer vs. normal analysis of *TAGLN* mRNA in Oncomine database

| Study | Cancerous tissue being compared to Normal | P value | Fold Change | Gene Rank (Top % genes) |
|------------------------------|--|----------------|--------------------|--------------------------------|
| Richardson Breast 2 (n = 47) | Ductal Breast Carcinoma | 1.03E-12 | -5.92 | 0.3 |
| Turashvili Breast (n = 30) | Invasive Lobular Breast Carcinoma | 8.20E-04 | -2.26 | 0.4 |
| | Invasive Ductal Breast Carcinoma | 1.50E-02 | -2.95 | 4.9 |
| Ma Breast 4 (n = 66) | Ductal Breast Carcinoma in Situ Epithelia | 2.90E-07 | -2.78 | 0.4 |
| | Invasive Ductal Breast Carcinoma Epithelia | 4.01E-05 | -2.28 | 1.2 |
| TCGA Breast (n = 593) | Mucinous Breast Carcinoma | 9.64E-07 | -2.37 | 1.2 |
| | Invasive Ductal Breast Carcinoma | 3.48E-38 | -2.70 | 1.5 |
| | Invasive Breast Carcinoma | 1.69E-19 | -2.32 | 3.1 |
| | Mixed Lobular and Ductal Breast Carcinoma | 8.86E-06 | -2.35 | 3.2 |
| | Intraductal Cribriform Breast Adenocarcinoma | 4.10E-02 | -3.10 | 21 |
| | Invasive Ductal and Lobular Carcinoma | 4.10E-02 | -2.55 | 23.9 |
| Sorlie Breast (n = 85) | Lobular Breast Carcinoma | 3.80E-02 | -2.15 | 6.8 |
| | Ductal Breast Carcinoma | 3.00E-02 | -2.13 | 15.4 |
| Perou Breast (n = 65) | Ductal Breast Carcinoma | 1.10E-02 | -2.10 | 8.6 |
| Curtis Breast (n = 2 136) | Invasive Ductal Breast Carcinoma | 7.15E-50 | -2.30 | 4.7 |
| | Medullary Breast Carcinoma | 1.29E-09 | -3.37 | 7.3 |
| | Mucinous Breast Carcinoma | 9.39E-14 | -2.59 | 7.5 |
| | Invasive Lobular Breast Carcinoma | 2.05E-21 | -2.06 | 7.8 |
| | Breast Carcinoma | 5.77E-05 | -2.68 | 8.5 |
| | Invasive Breast Carcinoma | 1.68E-04 | -2.62 | 12.0 |
| Finak Breast (n = 59) | Invasive Breast Carcinoma Stroma | 2.65E-05 | -3.84 | 33.4 |