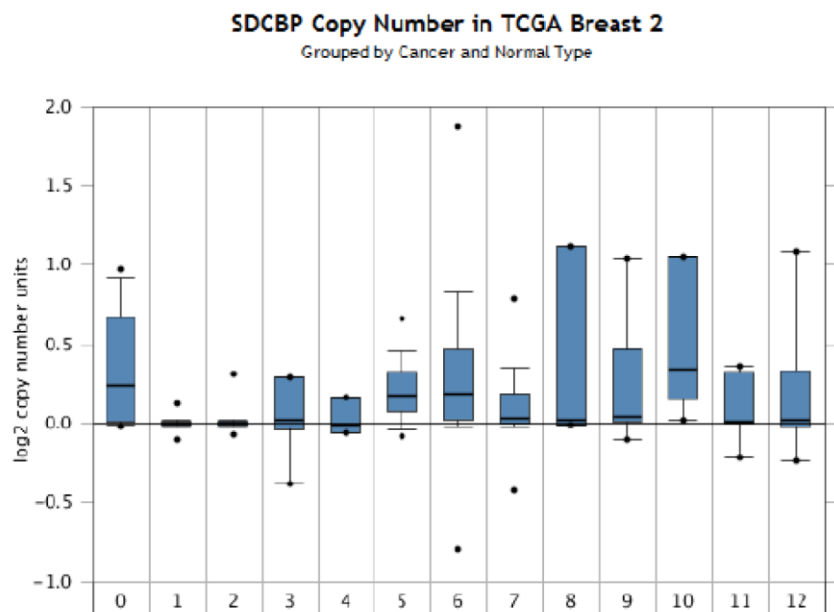


# MDA-9/Syntenin (SDCBP) modulates small GTPases RhoA and Cdc42 *via* transforming growth factor $\beta$ 1 to enhance epithelial-mesenchymal transition in breast cancer

## Supplementary Material



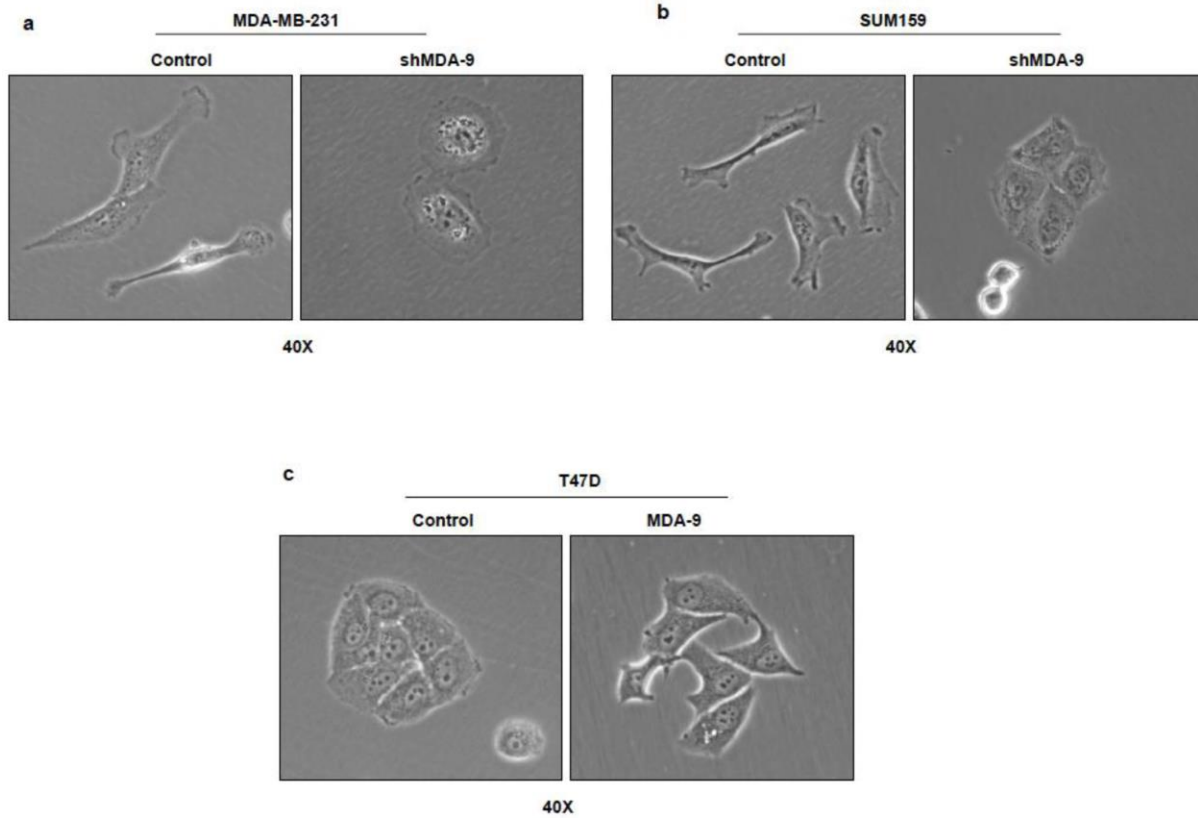
### Legend

- |  |   |
|--|---|
| 0. No value (23)   | 7. Invasive Lobular Breast Carcinoma (71)         |
| 1. Blood (702)   | 8. Invasive Papillary Breast Carcinoma (3)        |
| 2. Breast (111)  | 9. Male Breast Carcinoma (9)                      |
| 3. Ductal Breast Carcinoma (5)                               | 10. Medullary Breast Carcinoma (4)                |
| 4. Invasive Ductal and Invasive Lobular Breast Carcinoma (3) | 11. Mixed Lobular and Ductal Breast Carcinoma (9) |
| 5. Invasive Ductal and Lobular Carcinoma (14)                | 12. Mucinous Breast Carcinoma (9)                 |
| 6. Invasive Ductal Breast Carcinoma (639)                    |   |

### TCGA Breast 2

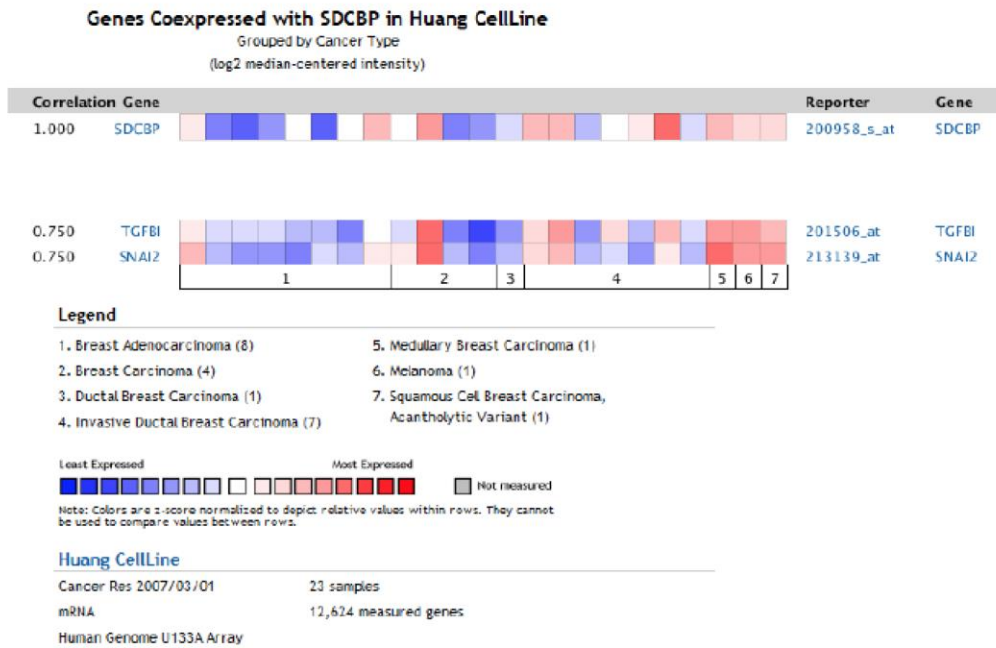
No Associated Paper 2012/02/29	1,602 samples	<a href="#">SDCBP Information</a>
DNA	18,823 measured genes	<a href="#">Reporter Information</a>
RefSeq Genes (UCSC refGene, July 2009, hg18, NCBI 36.1, March 2006)		

**Supplementary Figure 1. DNA copy number of MDA-9 is elevated in human breast cancer patients.** Histogram from TCGA database in OncoPrint demonstrating MDA-9 copy number elevation in breast tumors compared to normal breast.



**Supplementary Figure 2. Modulation of MDA-9 expression causes changes in cell shape.**

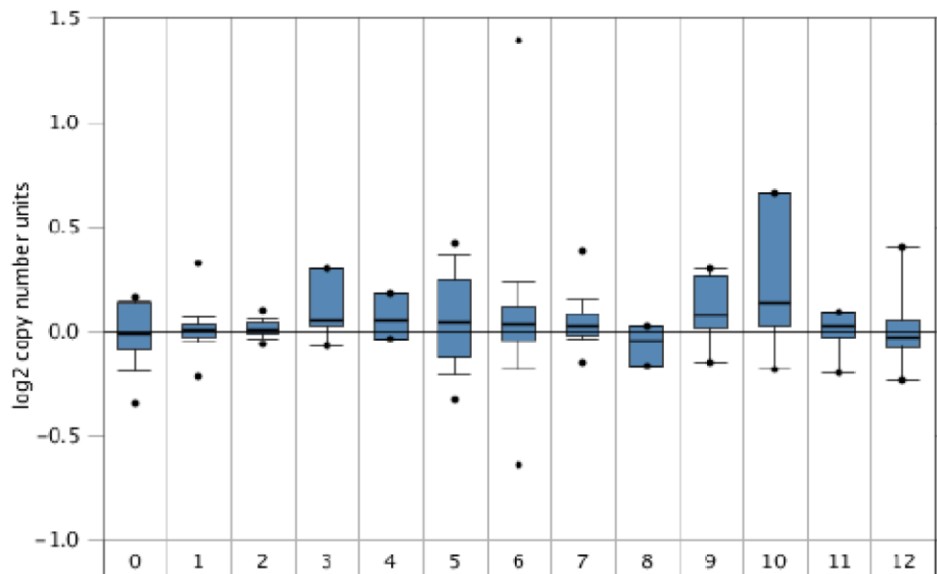
Representative images showing change in morphology in 2-dimensional culture on plastic plates following silencing MDA-9 expression in MDA-MB-231 and SUM159 and overexpressing MDA-9 in T47D cells.



**Supplementary Figure 3. MDA-9 and TGFβ1 are co-expressed in breast cancer patient samples.** Correlation data from TCGA database in Oncomine demonstrating that MDA-9, TGFβ1 and SNAI2 (also known as Slug, a key EMT marker) genes are coexpressed in breast cancer patient samples.

## TGFB1 Copy Number in TCGA Breast 2

Grouped by Cancer and Normal Type



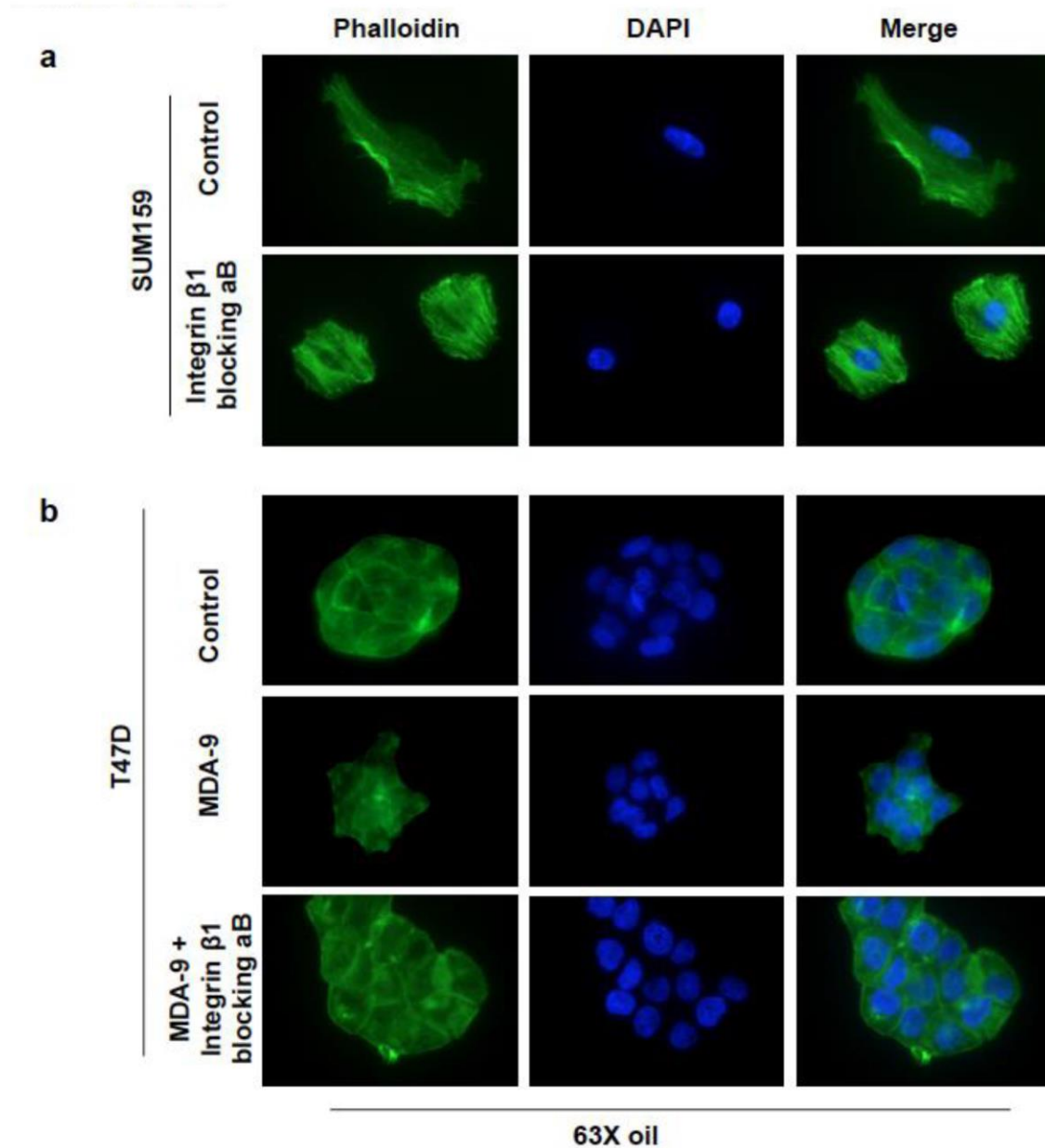
### Legend

- |  |   |
|--|---|
| 0. No value (23)   | 7. Invasive Lobular Breast Carcinoma (71)         |
| 1. Blood (702)   | 8. Invasive Papillary Breast Carcinoma (3)        |
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| 3. Ductal Breast Carcinoma (5)                               | 10. Medullary Breast Carcinoma (4)                |
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| 5. Invasive Ductal and Lobular Carcinoma (14)                | 12. Mucinous Breast Carcinoma (9)                 |
| 6. Invasive Ductal Breast Carcinoma (639)                    |   |

### TCGA Breast 2

No Associated Paper 2012/02/29	1,602 samples	<a href="#">TGFB1 Information</a>
DNA	18,823 measured genes	<a href="#">Reporter Information</a>
RefSeq Genes (UCSC refGene, July 2009, hg18, NCBI 36.1, March 2006)		

**Supplementary Figure 4. DNA copy number of TGFB1 is elevated in human breast cancer patients.** Histogram from TCGA database in OncoPrint demonstrating TGFB1 copy number elevation in breast tumors compared to normal breast in the same sample set assessed for MDA-9 expression in Supplementary Figure 1.



**Supplementary Figure 5. Integrin  $\beta$ 1 regulates cytoskeletal reorganization**

(a) Representative images showing change in cytoskeletal reorganization following addition of Integrin  $\beta$ 1 blocking antibody in SUM159 cells. (b) Representative images showing change in cytoskeletal reorganization following overexpression of MDA-9 that was restored upon addition of Integrin  $\beta$ 1 blocking antibody.

