Supplementary Figure Legends

Figure S1.

(A) Morphology of immortalized HMLE cells expressing shCntrl, shEcad, and DN-Ecad. (B) Expression levels of H-ras, E-cadherin, β-catenin, N-cadherin and vimentin in shCntrl or shEcad expressing immortalized (HMLE) and transformed (HMLER) breast epithelial cells examined by immunoblotting. β-actin is used as a loading control.

Figure S2.

Re-expression of E-cadherin rescues shEcad effects in HMLE cells. (A) Morphology of immortalized HMLE-shEcad cells expressing control vector (pWB) or murine E-cadherin expression vector (pWB-Ecad). (B) Expression levels of E-cadherin, N-cadherin and vimentin in HMLE-shCntrl or HMLE-shEcad cells expressing control vector (pWB) or murine E-cadherin expression vector (pWB-Ecad).β-actin is used as a loading control

Figure S3.

Maintenance of E-cadherin knock-down and DN-Ecad expression in primary tumors and tumor-derived cell lines. (A) Expression levels of E-cadherin and dominant-negative mutant E-cadherin (Arrowhead) in parental and tumor derived HMLER-shCntrl, shEcad, and DN-Ecad cells. Tubulin is used as loading controls. (B)

Representative serial tumor sections stained for E-cadherin and Large T antigen to mark the tumor cells (T). Arrowhead in lower left panel points to membranous E-cadherin staining in shCntrl tumors whereas no such staining is observed in shEcad tumors. Note that the staining in the mouse skin adjacent to the shEcad tumor serves as a positive control.

Figure S4. *In vitro* growth rate of HMLER shEcad and shEcad + shBcat cell lines as determined by Cell-titer-glo assay.

Figure S5. Overexpression of active B-catenin is not sufficient to cause the EMT. Expression levels of β-catenin, E-cadherin, N-cadherin and vimentin in HMLER cells expressing either empty vector (pbp) or truncated β-catenin cDNA (pbp ΔN-βcat, indicated by arrowhead). HMLER-shEcad cell lysate was included to serve as a positive control for N-cadherin and vimentin. β-actin was used as a loading control.

Figure S6. Dependence on β-catenin of gene expression changes in shEcad cells. Depicted are representative genes, either induced or repressed in shEcad cells, whose regulation is dependent on (6 genes on the left) or independent of β-catenin activity (6 genes on the right). Each dot represents the value for an individual replicate expression value (colors correspond to samples) for the gene listed on the x-axis. The dotted line indicates the 1.5 $\log_2$ fold-change threshold.