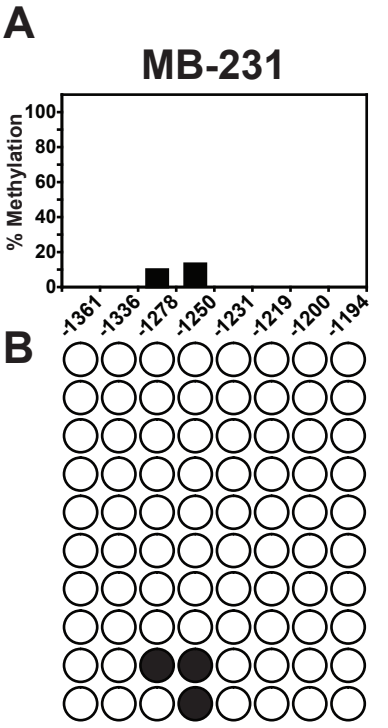
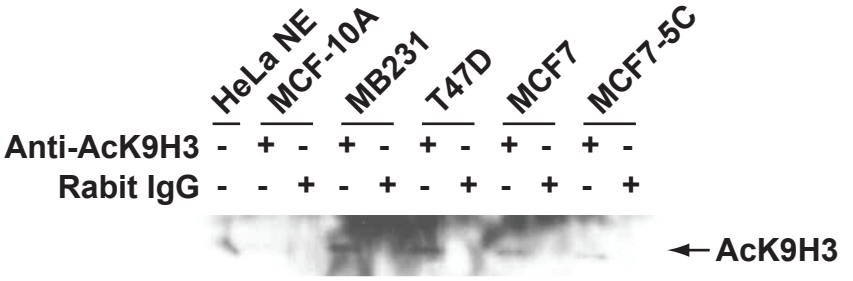
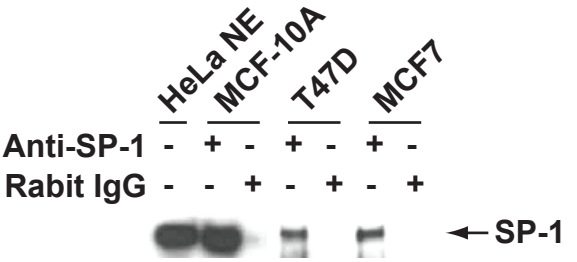


Supplmental Figure 1. Decreased MnSOD expression in MB-231 is not associated with DNA hypermethylation status. (**A**) The cytosine methylation frequency histograms for the region analyzed in MB-231. (**B**) Location and methylation status of eight CpG sites in the *SOD2* 5' regulatory region analyzed for 10 individual clones (○ unmethylated CpG sites, ● methylated CpGs).


HeLa NE
MCF-10A
MB231
T47D
MCF7
MCF7-5C
Anti-AcK9H3 - + - + - + - + - + -
Rabit IgG - - + - + - + - + - +
AcK9H3


HeLa NE
MCF-10A
T47D
MCF7
Anti-SP-1 - + - + - + -
Rabit IgG - - + - + - +
SP-1

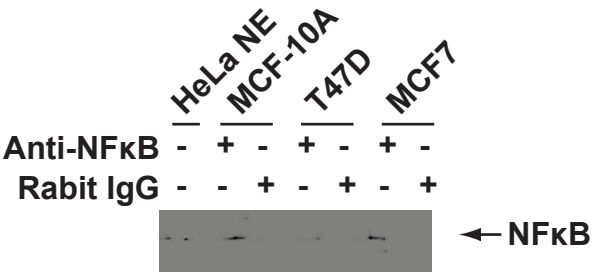

HeLa NE
MCF-10A
T47D
MCF7
Anti-NFκB - + - + - + -
Rabit IgG - - + - + - +
NFκB

Table S1. Tukey's multiple comparison analyses of differences between histone modifications and chromatin accessibility at the SOD2 locus between MCF-10A and the indicated breast cancer cell lines. P values given are significance for each cell line compared to MCF-10A at the seven SOD2 amplicons, and GAPDH promoter.

Dimethyl H3K4

	A1	A2	A3	A4	A5	A6	A7	GAPDH
MB-231	P < 0.01	P < 0.001	P < 0.05	P < 0.05	P < 0.05	P < 0.001	P < 0.05	P > 0.05
T47D	P < 0.01	P < 0.001	P < 0.01	P < 0.01	P < 0.001	P < 0.001	P < 0.01	P > 0.05
MCF7	P < 0.01	P < 0.001	P < 0.01	P < 0.01	P < 0.001	P < 0.001	P < 0.01	P > 0.05
MCF7-5C	P < 0.05	P < 0.001	P < 0.05	P < 0.05	P < 0.001	P < 0.001	P < 0.05	P > 0.05

Acetyl H3K9

	A1	A2	A3	A4	A5	A6	A7	GAPDH
MB-231	P > 0.05	P > 0.05	P < 0.01	P < 0.05	P > 0.05	P > 0.05	P < 0.01	P > 0.05
T47D	P < 0.05	P < 0.001	P < 0.001	P < 0.001	P > 0.05	P < 0.05	P < 0.001	P > 0.05
MCF7	P > 0.05	P < 0.01	P < 0.001	P < 0.001	P > 0.05	P > 0.05	P < 0.001	P > 0.05
MCF7-5C	P > 0.05	P < 0.01	P < 0.001	P < 0.001	P < 0.05	P < 0.05	P < 0.01	P > 0.05

Chromatin Accessibility

	A1	A2	A3	A4	A5	A6	A7	GAPDH
MB-231	P > 0.05	P < 0.05	P < 0.01	P < 0.05	P < 0.01	P < 0.05	P < 0.001	P > 0.05
T47D	P > 0.05	P < 0.001	P < 0.01	P < 0.01	P < 0.001	P < 0.05	P < 0.001	P > 0.05
MCF7	P > 0.05	P < 0.001	P < 0.001	P < 0.001	P < 0.001	P < 0.05	P < 0.001	P > 0.05
MCF7-5C	P > 0.05	P < 0.01	P < 0.01	P < 0.01	P < 0.05	P < 0.05	P < 0.01	P > 0.05