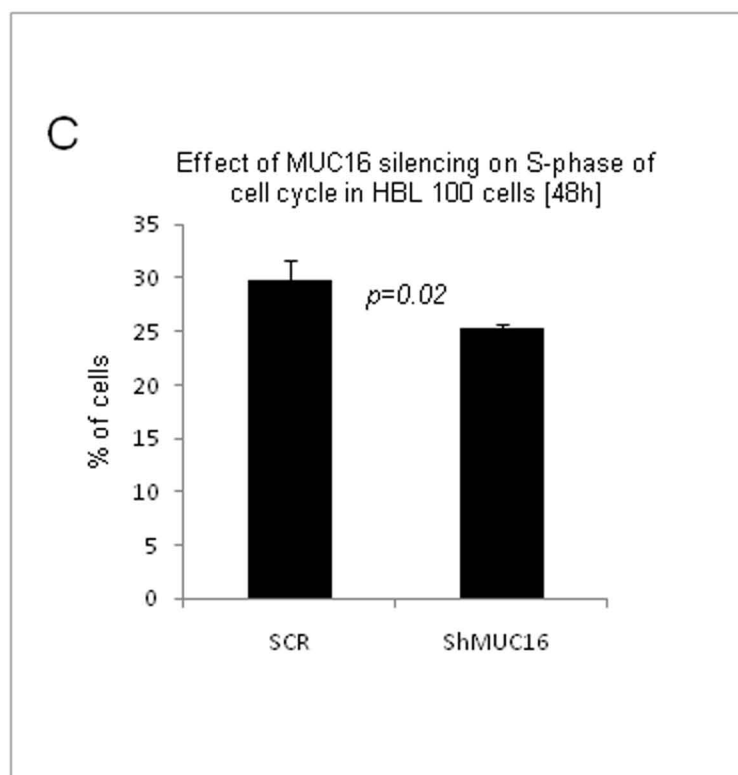
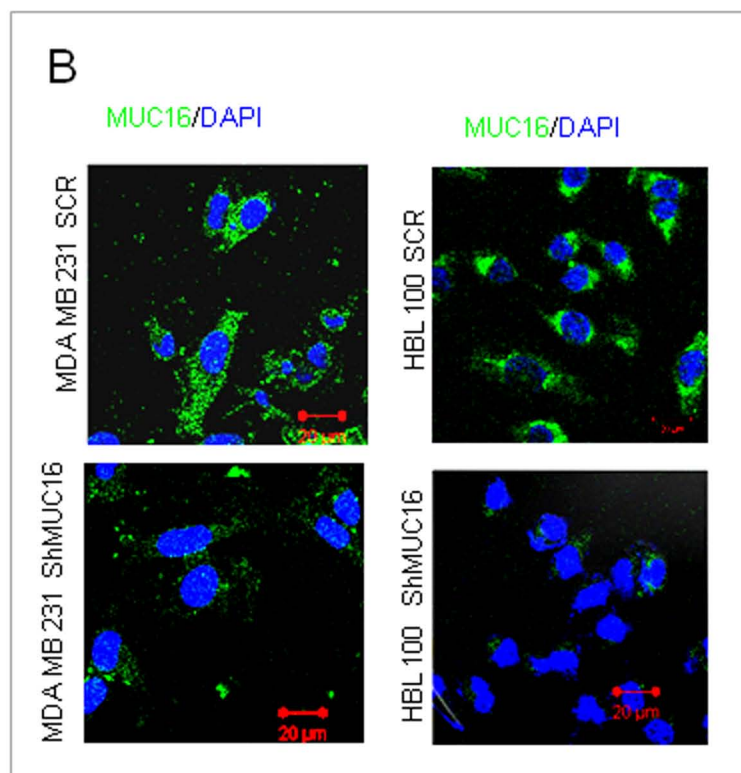
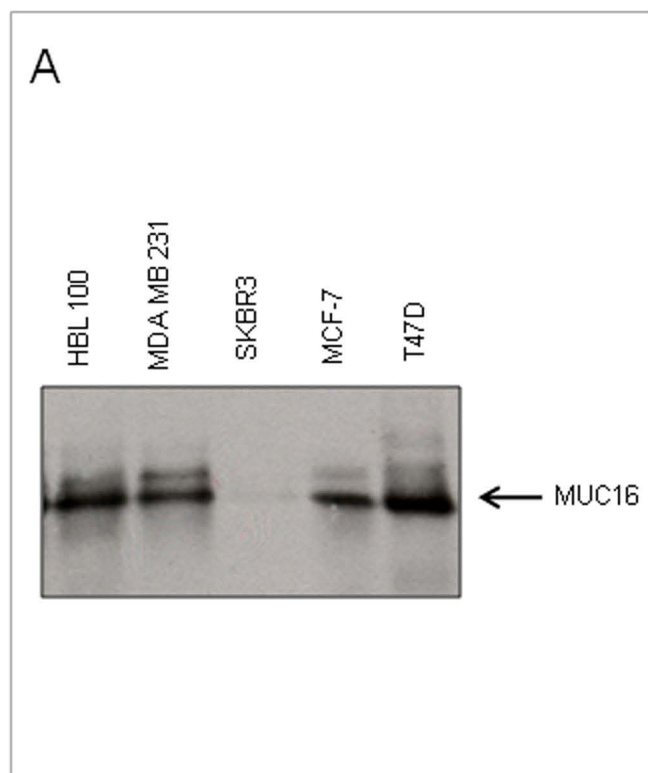


LEGENDS FOR SUPPLEMENTARY FIGURES

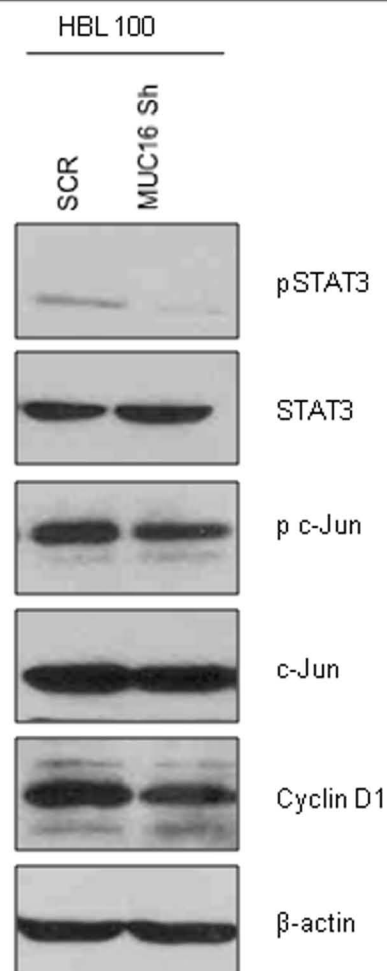
Supplementary figure1: The expression of MUC16 in different breast cancer cells, the panel shows that MUC16 is highly expressed in MDA MB 231 and HBL 100 cells [A]. Confocal analysis showed that decreased expression of MUC16 in MDA MB 231 and HBL 100 cells that were stably transfected with the MUC16 shRNA construct in comparison to empty-vector control cells [B]. The percentage of S-phase cells is significantly decreased in MUC16 knockdown cells ($p=0.02$) compared with vector control cells [C].

Supplementary figure.2: Western blot analysis showed that phosphorylation of STAT3 and c-Jun are drastically reduced in MUC16 knockdown cells when compared to vector control cells, which is required for proliferation of breast cancer cells via cyclin D1 activation [A]. In addition, confocal analysis also indicates that distribution of cyclin A, cyclin E and cyclin D1 was considerably decreased in MUC16 knockdown cells than vector control [B]. Interestingly, p21 is highly distributed in cytoplasmic region of vector control cells than MUC16 knockdown cells [B].

Supplementary figure.3: The number of cells in G2/M phase increased in MUC16 knockdown cells HBL 100 [$p\leq 0.04$] [A] and also decrease in cyclin B1 and phosphorylation of Aurora kinase A in MUC16-knockdown cells compared to the vector control cells by western blot [B]. Apoptosis analysis showing that percentage of apoptotic cells was significantly increased in the MUC16-knockdown cells compared to vector control cells [C].



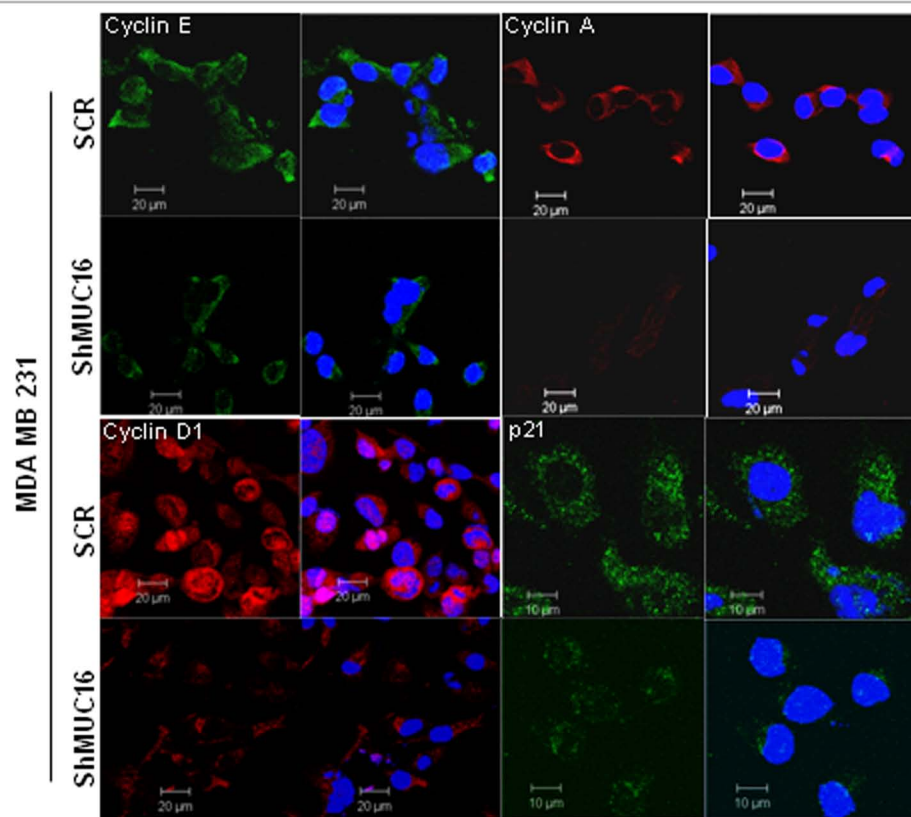
A



	Normalized with actin expression	
	SCR	ShMUC16
pSTAT3	1	0.2 (-80%*)
STAT3	1	1.12 (+12%*)
p c-Jun	1	0.7 (-30%*)
c-Jun	1	0.9 (-10%*)
Cyclin D1	1	0.7 (-30%*)

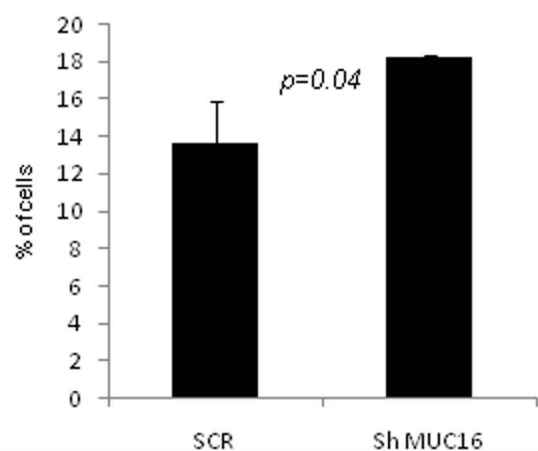
* Percent change (+/-) relative to SCR

B



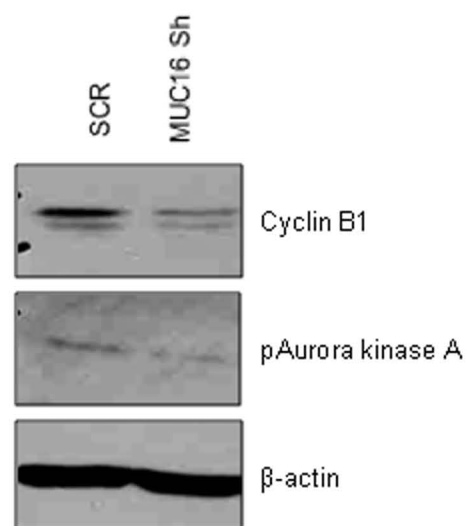
A

Effect of MUC16 silencing on G2/M phase of cell cycle in HBL 100 cells [48h]



B

HBL 100



	Normalized with actin expression	
	SCR	ShMUC16
Cyclin B1	1	0.7 (-30%*)
pAurora kinase A	1	0.4 (-60%*)

* Percent change (+/-) relative to SCR

C

Effect of MUC16 silencing on apoptotic activity of HBL 100 cells [48]

