**Supporting information** 



## Figure S1.

Representative data of immunoblotting of whole cell lysates of MDA-MB-157 cells with monoclonal antibody used in this study showing a specific 250kDa ARID1A band (lane 1). Any significant band was not observed using control antibody (lane 2).

## Figure S2.

Human Whole Genome DNA Microarray system (Agilent Technologies) unraveled that an approximately 20% reduction of *ARID1A* mRNA level resulted in the reduction, less than 50%, of the expression of about 772 genes, while it upregulated by 2 folds the expression of 468 genes in MDA-MB-157 breast cancer cells. Microarray data are deposited in the GEO public database (Array data accession number: GSE72669).



## Figure S3.

Scatter plot of the calibrated ratios (log scale) in the comparison between control (*horizontal axis*) and si-RNA mediated *ARID-1A* downregulated MDA-MB-157 cells (*vertical axis*). Arrow indicate the expression of *RAB11FIP1* gene.



## Figure S4.

Representative immunohistochemical staining using anti-RAB11FIP1 antibody. Strong RAB11FIP1 immunoreactivity can be seen in an invasive ductal carcinoma tissue with score 2 and disease recurrence (upper column). In contrast, weak RAB11FIP1 immunoreactivity was found in tissue with ARID1A score 8 obtained from a patient who was disease free after 120 months. ARID1A immunoreactivity is also shown (lower column).