Supplementary Materials: Down-Regulation of Ca\textsuperscript{2+}-Activated K\textsuperscript{+} Channel KCa1.1 in Human Breast Cancer MDA-MB-453 Cells Treated with Vitamin D Receptor Agonists

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**Figure S1.** Expression of KCa channel subtypes in MDA-MB-453 cells, the negative control in Western blotting for KCa1.1, the inhibition of expression levels of KCa1.1/HDAC2/HDAC3 transcripts by the transfection of KCa1.1/HDAC2/HDAC3 siRNA, respectively. (A) Real-time PCR assays for KCa1.1, KCa2.1, KCa2.2, KCa2.3, and KCa3.1 in MDA-MB-453 cells (n = 3 for each). Expression levels were expressed as a ratio to ACTB; (B) Protein lysates of MDA-MB-453, YMB-1, and MCF-7 cells were probed by immunoblotting with anti-KCa1.1 (upper panel) pretreated with excess antigens and anti-ACTB (lower panel) antibodies on the same filter; (C) Real-time PCR assay for KCa1.1 in MDA-MB-453 cells transfected with control siRNA (si-ctrl) and KCa1.1 siRNA (si-KCa1.1) (n = 5 for each); (D,E) Real-time PCR assay for HDAC2 (D) and HDAC3 (E) in MDA-MB-453 cells transfected with control siRNA (si-ctrl), HDAC2 siRNA (si-HDAC2), and HDAC3 siRNA (si-HDAC3) (n = 4 for each). Results are expressed as means ± SEM. **: p < 0.01 vs. si-ctrl.
Figure S2. Effects of 1 µM paxilline on outward K+ currents in MDA-MB-453 cells. Currents were elicited by depolarizing voltage-step to +40 mV from holding potential (−60 mV) with 10 mV increment (A); The currents were almost completely inhibited by application of 1 µM paxilline (B).

Figure S3. Effects of treatment with VDR agonists on transcriptional expression levels of E3 ubiquitin-protein ligases (NEDD4-1 and 4-2) in MDA-MB-453 cells. (A,B) Real-time PCR assay for NEDD4-1 (A), and NEDD4-2 (B) in VD agonist-treated MDA-MB-453 (n = 4 for each). Expression levels were expressed as a ratio to ACTB. Results are expressed as means ± SEM.