# Matrix Metalloproteinase-1 (MMP1) Upregulation through Promoter Hypomethylation Enhances Tamoxifen Resistance in Breast Cancer

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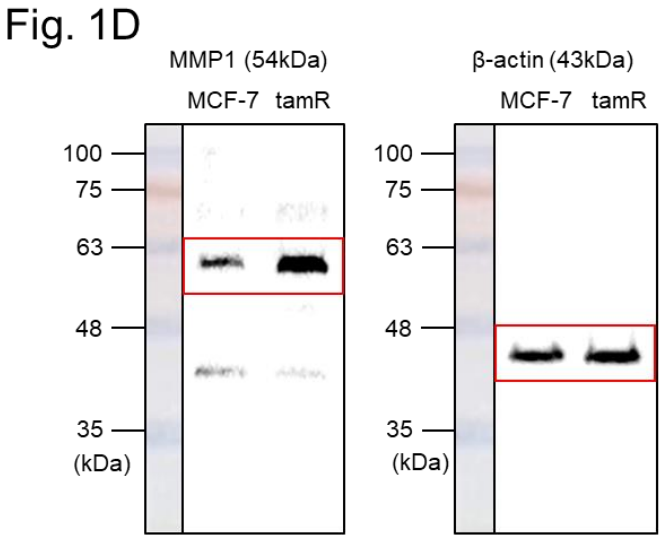
**Supporting Information**

**Table S1.** Primer sequences used for qRT-PCR and MSP employed in this study

| Gene | Forward primer (5′→ 3′) | Reverse primer (5′→ 3′) | Supplier |
|---|---|---|---|
| **qRT-PCR** | | | |
| *GAPDH* | ACATCGCTCAGACACCATG | TGTAGTTGAGGTCAATGAAGGG | IDT |
| *MMP1* | GACAGATTCTACATGCGCAC | CCCTTTGAAAAACCGGACTTC | Bioneer |
| **MSP** | | | |
| *MMP1 M* | ATTTTAAATAAGATGTGTGCG | AACCATCAAAACCAATCTTTT | Bioneer |
| *MMP1 U* | ATTTTAAATAAGATGTGTGTG | AACCATCAAAACCAATCTTTT | |

**Figure S1.** Uncropped Western blots. The boxed areas in the images are shown in the main text.




| cell line | MCF-7 | MCF-7/tamR |
|---|---|---|
| β-actin | 18466.85 | 22235.32 |
| MMP1 | 9789.24 | 26143.85 |

**Figure S2.** Induction of downregulation of MMP1 in the MCF-7 and MCF-7/tamR cells. Stable MMP1 knockdown cells [MCF-7/tamR/shMMP1 (A) and MCF-7/shMMP1 (B)] were developed using two shRNAs that target different MMP1 sites (#1 and #2). Expression of MMP1 was then evaluated by qRT-PCR. shNC; control shRNA. All results are reported as the means ± SE of three independent experiments. *$P < 0.01$