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ERRATUM

Erratum to: PGRMC1 contributes to doxorubicin-induced chemoresistance in MES-SA uterine sarcoma

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The original publication of the article unfortunately contained an error in Fig. 2. The correct figure is given below.

The online version of the original article can be found under doi:10.1007/s00018-014-1831-9.

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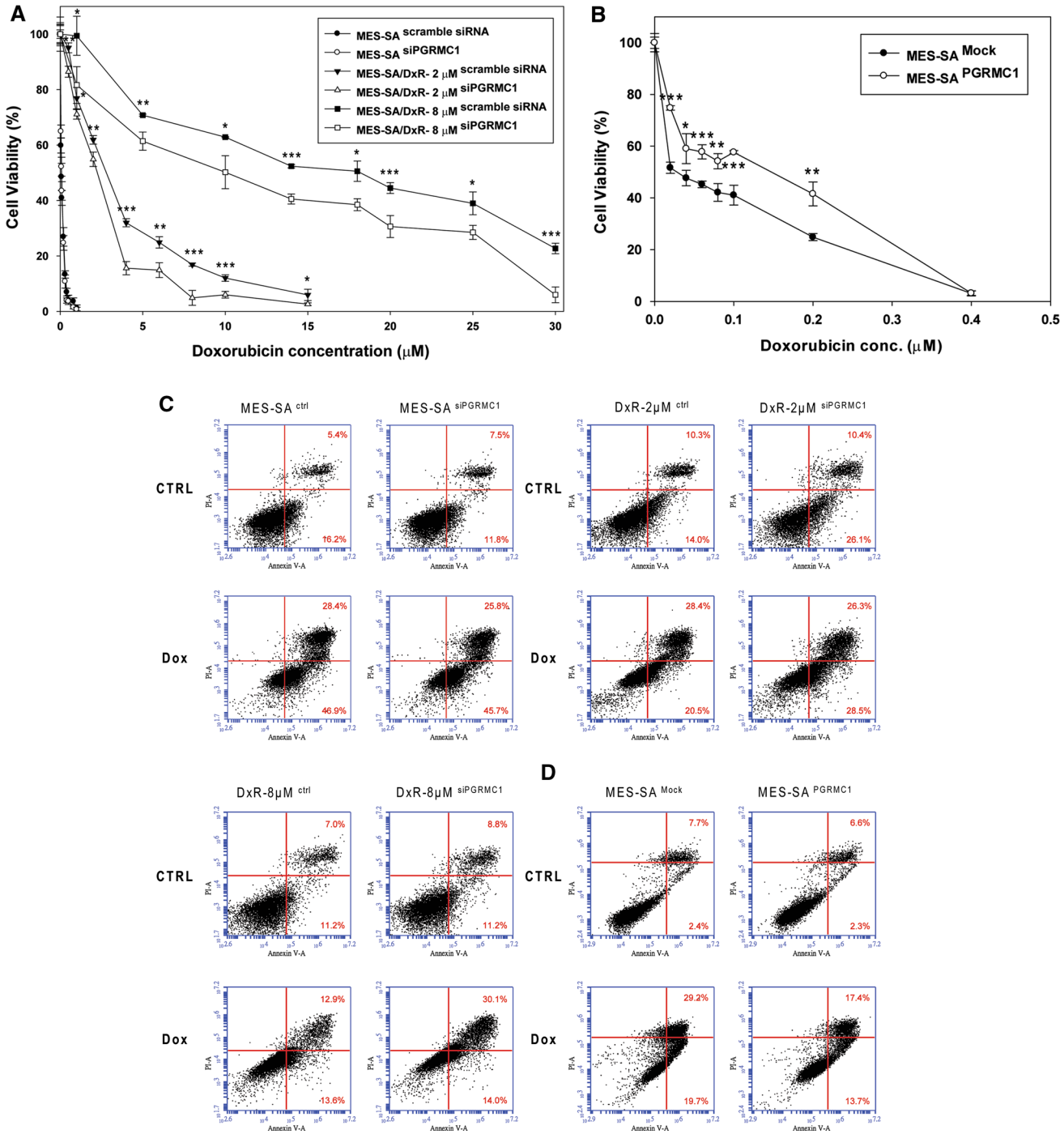
A
MES-SA scramble siRNA
MES-SA siPGRMC1
MES-SA/DxR- 2 μM scramble siRNA
MES-SA/DxR- 2 μM siPGRMC1
MES-SA/DxR- 8 μM scramble siRNA
MES-SA/DxR- 8 μM siPGRMC1
Cell Viability (%)
Doxorubicin concentration (μM)
B
MES-SA Mock
MES-SA PGRMC1
Cell Viability (%)
Doxorubicin conc. (μM)
C
MES-SA ctrl
MES-SA siPGRMC1
DxR-2μM ctrl
DxR-2μM siPGRMC1
CTRL
Dox
5.4%
16.2%
7.5%
11.8%
10.3%
14.0%
10.4%
26.1%
28.4%
46.9%
25.8%
45.7%
28.4%
20.5%
26.3%
28.5%
Annexin V-A
D
DxR-8μM ctrl
DxR-8μM siPGRMC1
MES-SA Mock
MES-SA PGRMC1
7.0%
11.2%
8.8%
11.2%
7.7%
2.4%
6.6%
2.3%
12.9%
13.6%
30.1%
14.0%
29.2%
19.7%
17.4%
13.7%

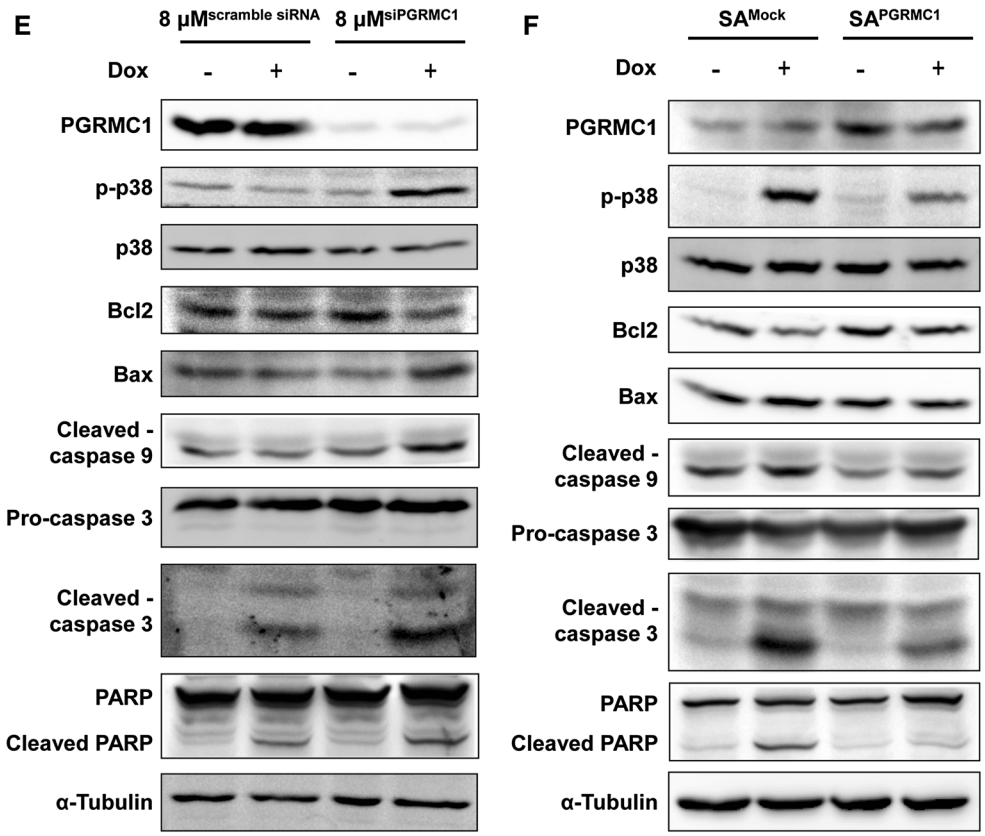

Fig. 2 Effects of PGRMC1 knockdown and PGRMC1 overexpression on cell viability, apoptosis, and level of apoptotic factors in resistant (MES-SA/DxR-2 μM and MES-SA/DxR-8 μM) and sensitive (MES-SA) uterine sarcoma cells. **a** Effect of PGRMC1 knockdown on the viability of MES-SA, MES-SA/DxR-2 μM, and MES-SA/DxR-8 μM cells treated with doxorubicin in a dose-dependent manner. MTT-based viability assays were performed in which 7000 MES-SA, MES-SA/DxR-2 μM, and MES-SA/DxR-8 μM cells were seeded into 96-well plates for overnight incubation, followed by pretreatment with 60 nM PGRMC1-specific small interfering RNA (*siRNA*) or the corresponding GC content of scrambled (mis-matched) siRNA. Within 24 h, the cells were treated with the indicated doxorubicin concentrations for 48 h, followed by incubation with MTT for 4 h. Dimethyl sulfoxide (DMSO) was then added and the plates shaken for 20 min followed by absorbance measurement at 540 nm. Values were normalized against the untreated samples and are the average of four independent measurements ± SD. $*P < 0.05$; $**P < 0.01$; $***P < 0.001$ vs. scrambled siRNA-transfected control cells. **b** Effect of PGRMC1 overexpression on the viability of the sensitive MES-SA cells. Values were normalized against the untreated samples and are the average of four independent measurements ± SD. $*P < 0.05$; $**P < 0.01$; $***P < 0.001$ vs. empty vector-transfected control cells (*MES-SA* ^{Mock}). **c** Flow cytometry analysis of apoptosis using annexin V and propidium iodide (PI) staining. PGRMC1-silenced/scrambled siRNA-pretreated MES-SA, MES-SA/DxR-2 μM, and MES-SA/DxR-8 μM cells were treated with 1 × half-maximal inhibitory concentration (IC_{50}) of doxorubicin (*Dox*) or left untreated for 48 h (*CTRL*). After treatment, 10^6 cells were incubated with Alexa Fluor 488-conjugated annexin V and PI containing 1× binding buffer at room temperature for 15 min. The stained cells were analyzed by flow cytometry. **d** Effect of doxorubicin on apoptosis in the control MES-SA and PGRMC1-overexpressing MES-SA cells. Annexin V is presented on the *x-axis* as FL1-A, and PI is presented on the *y-axis* as FL2-A. The *lower right quadrant* indicates the percentage of early apoptotic cells (annexin V-positive cells), *upper right quadrant* indicates the percentage of late apoptotic cells (annexin V-positive and PI-positive cells). **e**, **f** Immunoblotting assay of indicated apoptotic factors with and without 0.5 × IC_{50} of doxorubicin for 24 h in the PGRMC1-silenced MES-SA/DxR-8 μM cells and PGRMC1-overexpressing MES-SA cells, respectively