Supporting Information for

Original article

Class I histone deacetylase inhibition is synthetic lethal with BRCA1 deficiency in breast cancer cells

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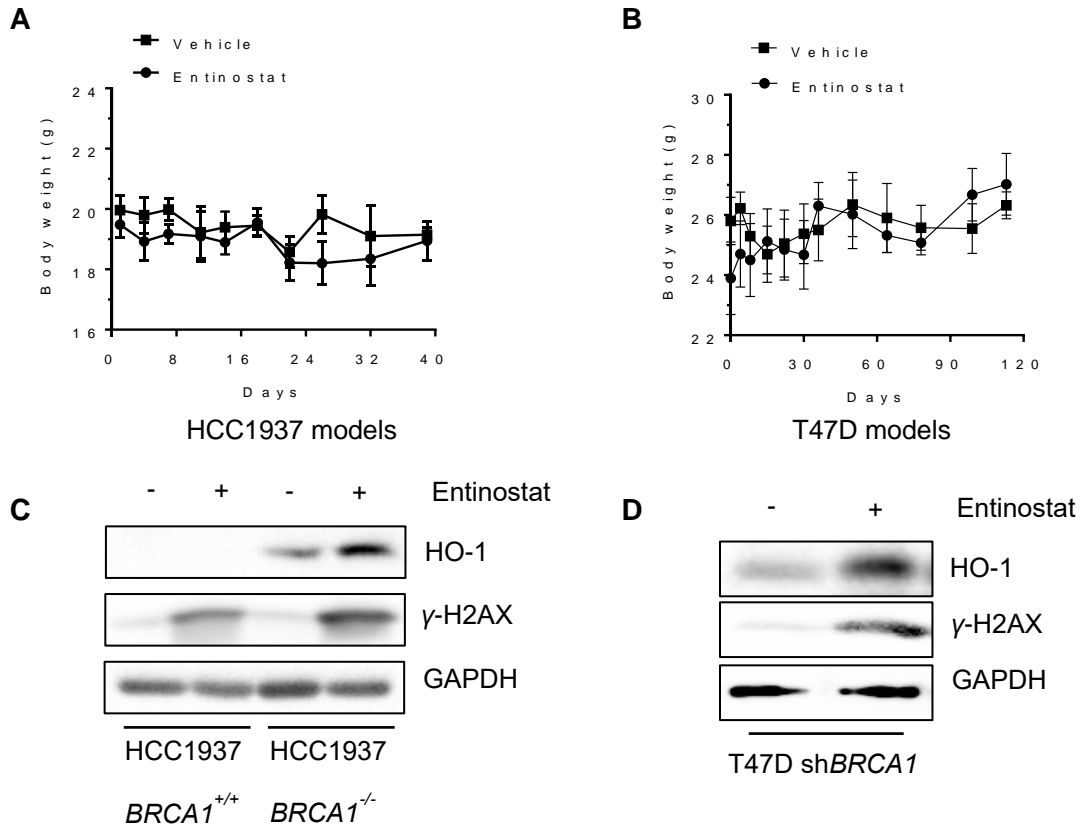E-mail address: jsshim@um.edu.mo (Joong Sup Shim).

Figure S1 Body weight changes and tumor Western blots from the mice bearing HCC1937 and T47D tumor xenografts. (A) and (B) Body weight changes of the mice bearing HCC1937 (A) and T47D (B) tumors during the treatment course are shown. (C) and (D) Western blot analysis of oxidative stress and DNA damage response proteins in tumors isolated from the mice.
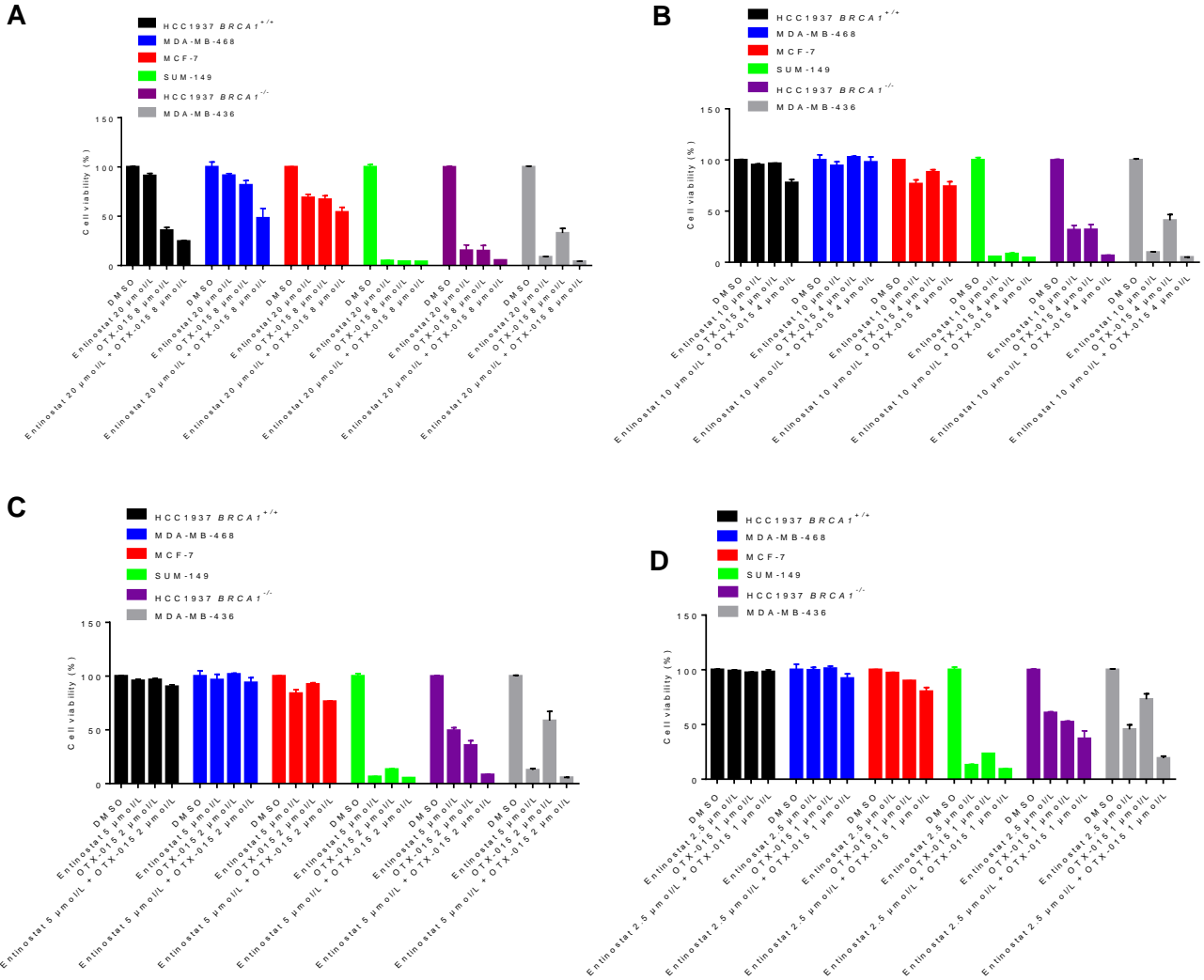
Figure S2 Enhanced synthetic lethality effect by the combination of bromodomain and extraterminal motif (BET) and HDAC inhibition in BRCA1 deficient breast cancer cells. The synthetic lethality effect of the combination of BET and HDAC inhibitors in the panel of breast cancer cells with different BRCA1 status was tested. The cells were treated with single or combination of 4× (A), 2× (B), 1× (C) and 0.5× (D) concentrations of IC_{50} of OTX-015 and entinostat for 72 h and alamarblue assay was performed to assess cell viability.

Table S1 The sequence information of the siRNAs used in this study.

Target		siRNA sequence
TXNIP	Sense	5′-rArArGrCrArGrCrUrUrUrArCrCrUrArCrUrUrGrUrUrUrCTT-3′
	Antisense	5′-rArArGrArArArCrArArGrUrArGrGrUrArArArGrCrUrGrCrUrUrCrU-3′

Table S2 The sequence information of the primers for RT-qPCR used in this study.

Target	Primer
TXNIP promoter site	Forward: 5′-CAGCGATCTCACTGATTG-3′ Reverse: 5′-AGTTTCAAGCAGGAGGCG-3′
TXNIP	Forward: 5′-TGGATCTGGTGGATGTCAATAC-3′ Reverse: 5′-GCGCATGTCCCTGAGATAATA-3′
GAPDH	Forward: 5′-CAATTCCCCATCTCAGTCGT-3′ Reverse: 5′-TAGTAGCCGGGCCCTACTTT-3′

Table S3 Information of antibodies used in this study.

Primary antibody	Supplier	Cat. No.	Species	Dilution factor
α-Tubulin	Santa Cruz Biotechnology	sc-5286	Mouse	1:2000
BRCA1	Santa Cruz Biotechnology	sc-642	Rabbit	1:200
Cleaved caspase-3	Cell Signaling Technology	9661S	Rabbit	1:2000
γ-H2AX	Cell Signaling Technology	9718S	Rabbit	1:4000
GAPDH	Santa Cruz Biotechnology	sc-365062	Mouse	1:2000
HO-1	Santa Cruz Biotechnology	sc-136960	Mouse	1:400
HSP90	Santa Cruz Biotechnology	sc-69703	Mouse	1:2000
MLXIP	Proteintech	13614-1-AP	Rabbit	1:2000
PARP-1	Santa Cruz Biotechnology	sc-7150	Rabbit	1:1000
TXNIP	Cell Signaling Technology	14715S	Rabbit	1:2000
Goat anti-mouse, HRP linked	Santa Cruz Biotechnology	sc-2005	Goat	1:2000
Goat anti-rabbit, HRP linked	Santa Cruz Biotechnology	sc-2004	Goat	1:2000