



Article

# PSPC1 Inhibition Synergizes with Poly (ADP-ribose) Polymerase Inhibitors in a Preclinical Model of BRCA-mutated Breast/Ovarian Cancer

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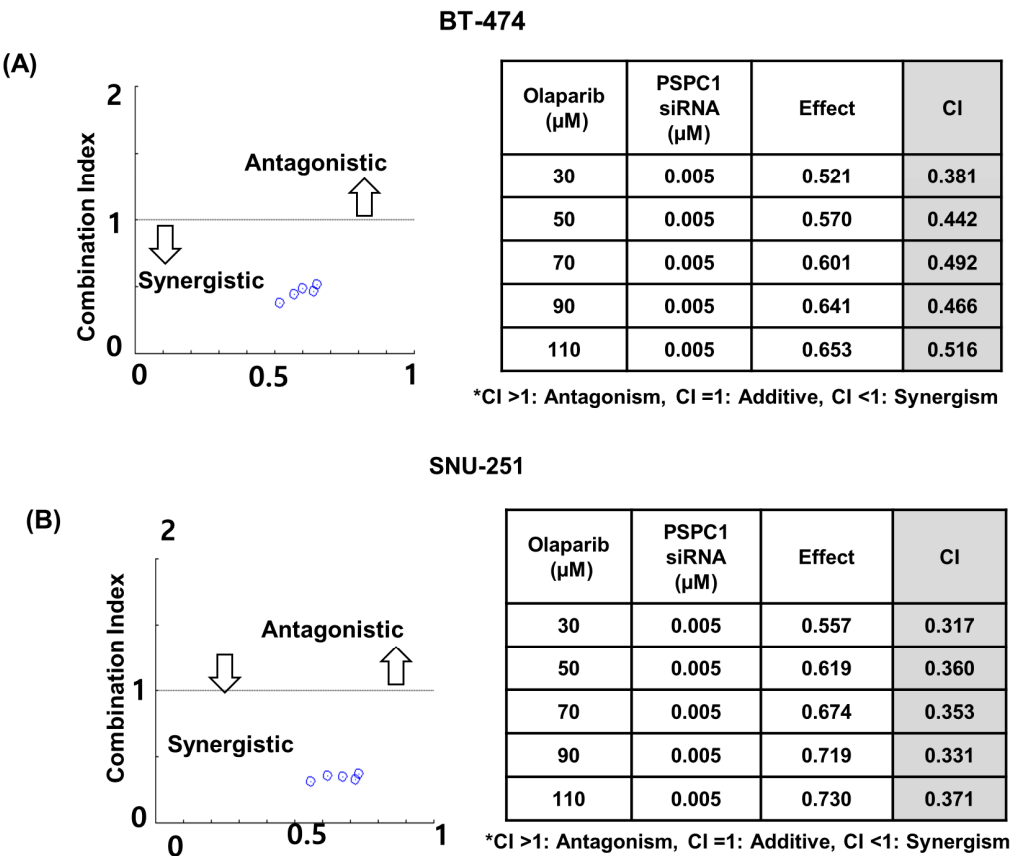


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Supplementary figure

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Supplementary figure S1. (A) CI value of MTT assay in BT-474 cells. (B) CI value of MTT assay in SNU-251 cells

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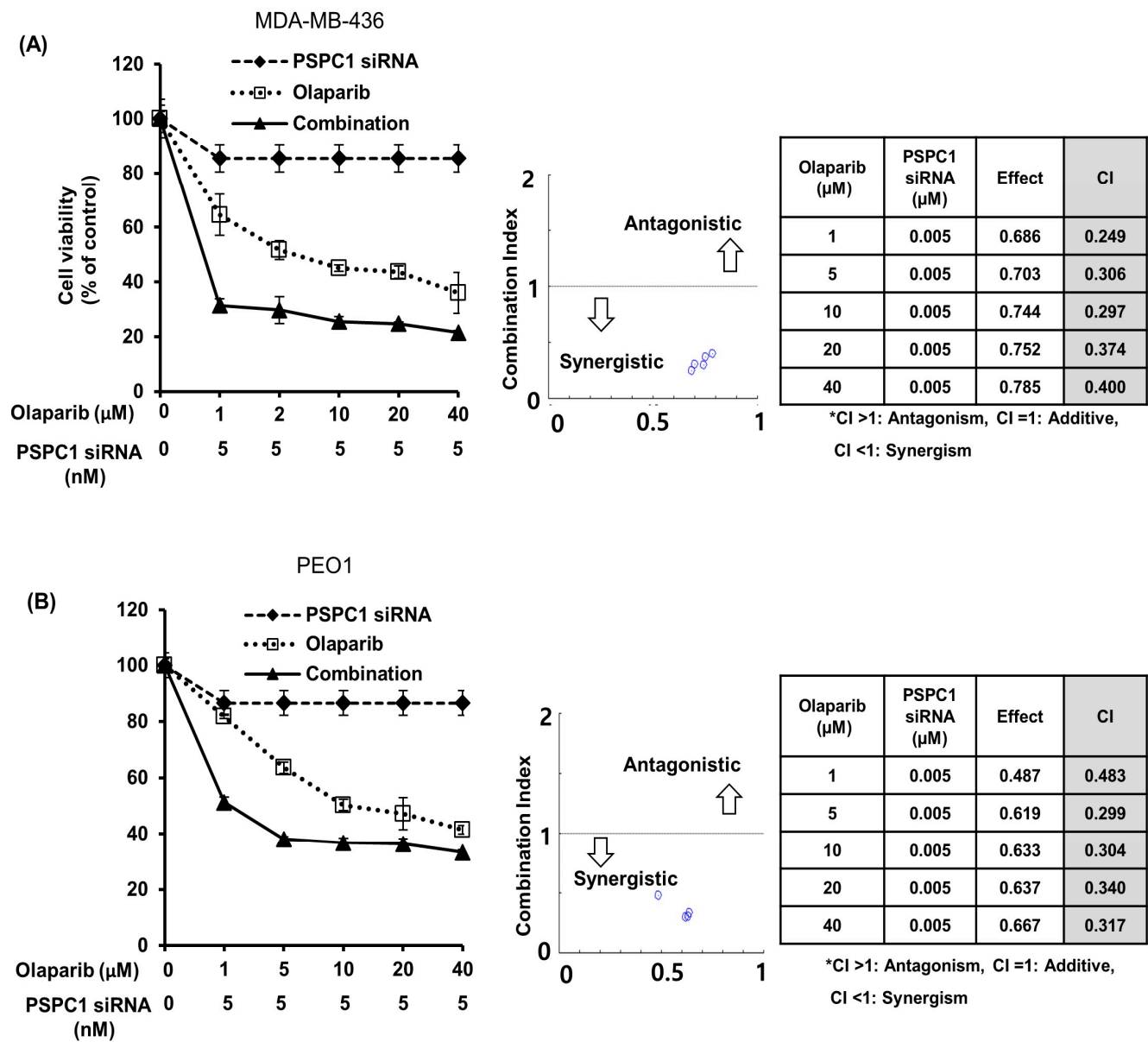
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**Supplementary figure S2.** (A-B) MTT assay showed that combined PSpC1 siRNA and olaparib enhanced the antiproliferative effects in (A) MDA-MB-436 and (B) PEO1 cells. Cells were treated with 5 nM of PSpC1 siRNA and indicated concentrations of olaparib and incubated for 72 hours. Middle and right panel exhibited combination index (CI) and CI values respectively.

Supplementary Tables

Supplementary table S1: Information about histology, subtype, and BRCA1/2 mutation of BT-474 and SNU-251 cell.

Cell	BT-474	MDA-MB-436	SNU-251	PEO1
Cancer type	Breast	Breast	Ovarian	Ovarian
Histology	IDC (Invasive ductal carcinoma)	Invasive breast carcinoma	Endometroid carcinoma	Cystadenocarcinoma
Subtype	ER+HER2+	Triple negative		
BRCA mutation	BRCA2-mutated	BRCA1-mutated	BRCA1-mutated	BRCA2-mutated
	9281C > A; (S3094*)	c.5277 + 1G>A	Codon 1815 non-sense mutation, TGG(Trp) →TGA (stop)	p.Tyr1655Ter (c.4965C>G)
	Pathogenic	Pathogenic	Pathogenic	Pathogenic

**Supplementary table S2:** List of Primary and secondary antibodies were used in western blot and immunocytochemistry.

Antibody	Host species	Dilution	Company (catalog#)	Application
PSPC1	Mouse	1:100	sc-374181, Santa Cruz	WB
Caspase-3	Rabbit	1:1000	9662, Cell signaling	WB
DNA-PKcs	Rabbit	1:1000	ab32566, Abcam	WB
ATM	Mouse	1:200	sc-23921, Santa Cruz	WB
p-ATM	Mouse	1:200	sc-47739, Santa Cruz	WB
γH2AX	Rabbit	1:1000	5437, Cell signaling	WB, ICC
p-cdc25C	Rabbit	1:1000	4901, Cell signaling	WB
p-cdc2	Rabbit	1:1000	4539, Cell signaling	WB
GAPDH	Rabbit	1:1000	2118, Cell signaling	WB
Anti-Rabbit HRP	Goat	1:5000	GTX213110-01, Gene Tex	WB
Anti-Mouse HRP	Goat	1:5000	GTX213111-01, Gene Tex	WB

**Supplementary table S3:** A list of 19 BRCA1/2-mutated ovarian cancer cell lines in the GDSC database and olaparib IC<sub>50</sub>. BRCA1/2 mutation was determined from COSMIC website (<https://cancer.sanger.ac.uk>)

Cell line	Cosmic ID	Cancer type	BRCA1/2 mutation	Olaparib IC <sub>50</sub> (nmol)
SK-OV-3	905959	Ovary	BRCA2	4750.87
IGROV-1	905968	Ovary	BRCA1	4841.77
OVCAR-4	905990	Ovary	BRCA2	4265.86
EFO-27	906852	Ovary	BRCA2	3511.01
OC-314	909257	Ovary	BRCA1/2	3676.41
SW626	909753	Ovary	BRCA2	4543.61
KURAMOCH	909975	Ovary	BRCA2	4623.21
OAW-42	910548	Ovary	BRCA2	3413.52
KGN	924186	Ovary	BRCA1	4553.62
OVMIU	1240200	Ovary	BRCA2	4663.57
TOV-21G	1240222	Ovary	BRCA2	846.66
RKN	1298539	Ovary	BRCA2	3681.74
JHOS-2	1479995	Ovary	BRCA1	4094.88
JHOS-3	1480358	Ovary	BRCA1	4997.17
JHOS-4	1480359	Ovary	BRCA1	5189.69
OV-17R	1480361	Ovary	BRCA2	4904.96
OVCA420	1480364	Ovary	BRCA1	5025.65
PEO1	1480372	Ovary	BRCA2	4243.23
UWB1.289	1480374	Ovary	BRCA1	4009.04

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