

**Supplemental Table
Vendor**

	Cat. #	Antibody name
Cell Signaling Technology	94296	Mcl1
Cell Signaling Technology	4223	Bcl2
Cell Signaling Technology	2827	p-S70 Bcl2
Cell Signaling Technology	966	cleaved caspase 3
Cell Signaling Technology	14093	A1
Cell Signaling Technology	2724	Bcl-w
Cell Signaling Technology	2764	Bcl-xL
Cell Signaling Technology	12105	Bak
Cell Signaling Technology	2002	Bid
Cell Signaling Technology	2933	Bim
Cell Signaling Technology	5023	Bax
Cell Signaling Technology	9239	Bad
Cell Signaling Technology	12450	PUMA
Cell Signaling Technology	4904	STAT3
Cell Signaling Technology	9134	p-STAT3
Cell Signaling Technology	9542	PARP Antibody
Cell Signaling Technology	5625	Cleaved PARP (Asp214) (D64E10) XP Rabbit mAb
Cell Signaling Technology	9281	Phospho-p53 (Ser392) Antibody
Cell Signaling Technology	9275	Phospho-Akt (Thr308) Antibody
Cell Signaling Technology	4370	phospho-p44/42 MAPK(Erk1/2) XP Rabbit mAb
Cell Signaling Technology	4911	Phospho-YAP(Ser127) antibody
Cell Signaling Technology	14074	YAP (D8H1X) XP® Rabbit mAb
Cell Signaling Technology	3398	Phospho-eIF2 α (Ser51) (D9G8) XP® Rabbit mAb
Cell Signaling Technology	5324	eIF2 α (D7D3) XP® Rabbit mAb
Cell Signaling Technology	5558	Phospho-GSK-3 β (Ser9) (D85E12) XP Rabbit mAb
Cell Signaling Technology	4176	Phospho- β -Catenin(Ser675)(D2F1) XP Rabbit mAb
Cell Signaling Technology	9520	phospho-Smad3(Ser423/425)(C25A9) Rabbit mAb
Cell Signaling Technology	8242	NF- κ B p65 (D14E12) XP® Rabbit mAb
Cell Signaling Technology	3033	Phospho-NF- κ B p65 (Ser536) (93H1) Rabbit mAb
Cell Signaling Technology	2697	Phospho-IKK α / β (Ser176/180) (16A6) Rabbit mAb
Cell Signaling Technology	4691	Akt (pan) (C67E7) Rabbit mAb
Cell Signaling Technology	4695	ERK1/2
Cell Signaling Technology	8943	IKK β (D30C6) Rabbit mAb
Santa Cruz Biotechnology	sc-126	p53(DO-1)
Santa Cruz biotechnology	sc-7985-R	p-Akt1/2/3 (Ser473)-R
Santa Cruz Biotechnology	sc-8416	p-p70 S6 kinase α (A-6)
Santa Cruz Biotechnology	sc-7199	β -catenin (H-102)
Santa Cruz biotechnology	sc-231	RSK-1(C-21)
Santa Cruz Biotechnology	sc-8418	p70 S6 kinase α (H-9)
BD Bioscience	610201	GSK3 β
Millipore	4418	p-S380 RSK

Supplemental Figure 1

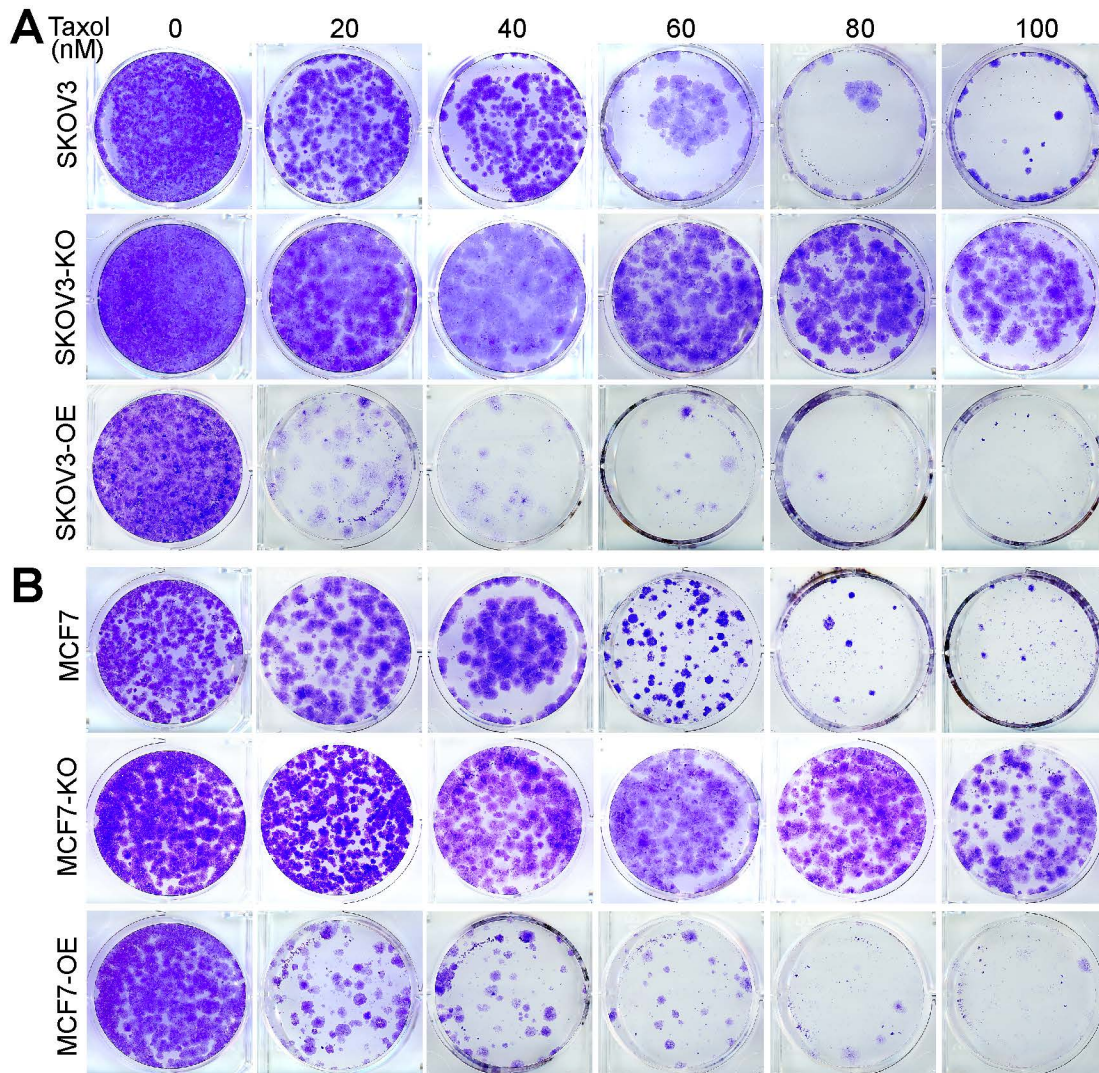


Figure S1 Deletion of PKR promotes cell survival in response to taxol treatment (A, B) Two thousand cells (parental, PKR-KO, or PKR-OE) were seeded into 6-well plates and incubated overnight. The cells were then treated for 24 h with the indicated concentrations of taxol. Representative images from three biological repeats were shown. KO: knockout; OE: overexpression.

Supplemental Figure 2

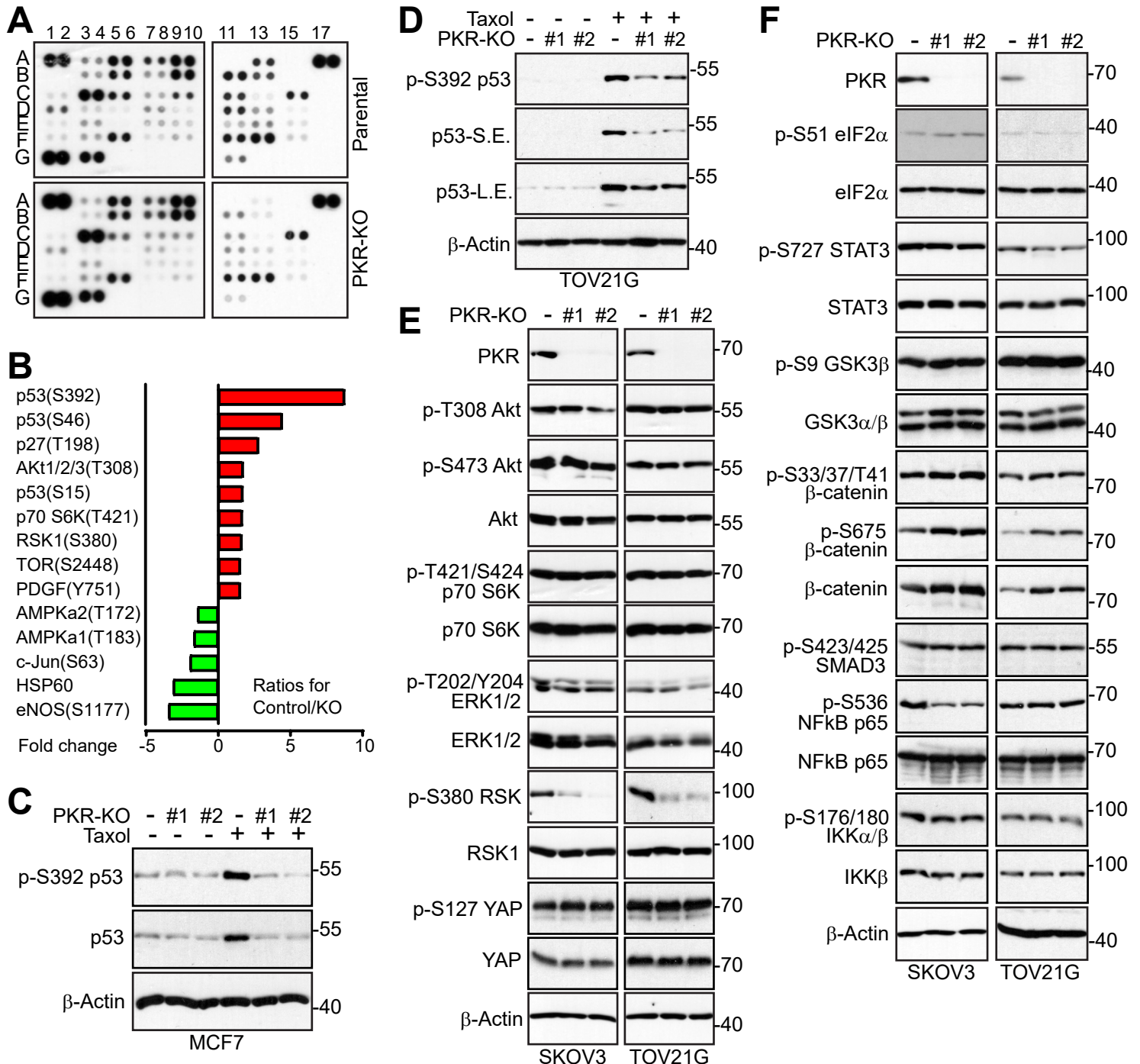


Figure S2 PKR regulates RSK activity and p53 expression

(A) SKOV3 parental and SKOV3-PKR-KO cells were treated with taxol (100 nM) for 24 h and cell lysates were incubated with Human Phospho-Kinase Array and analyzed with accompanying software.

(B) Alterations of phospho-kinases in response to taxol upon PKR deletion. The data were generated by an online software accompanying the Kit (R&D Systems).

(C, D) PKR deletion blocked p53 expression induced by taxol in TOV21G and MCF-7 cells. Cells were treated with taxol (100 nM) for 24 h and total cell lysates were probed with the indicated antibodies.

(E, F) Western blot analysis of major signaling pathways in parental and PKR-KO cells. Signaling or pathways are Akt-S6K, RSK-ERK, YAP, Jak-STAT, Wnt-β-catenin, TGF-SMAD, and NF-κB. The main substrate of PKR eIF2α is also included.