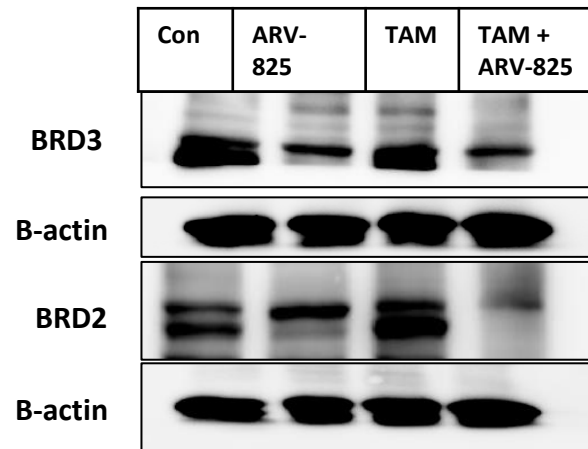
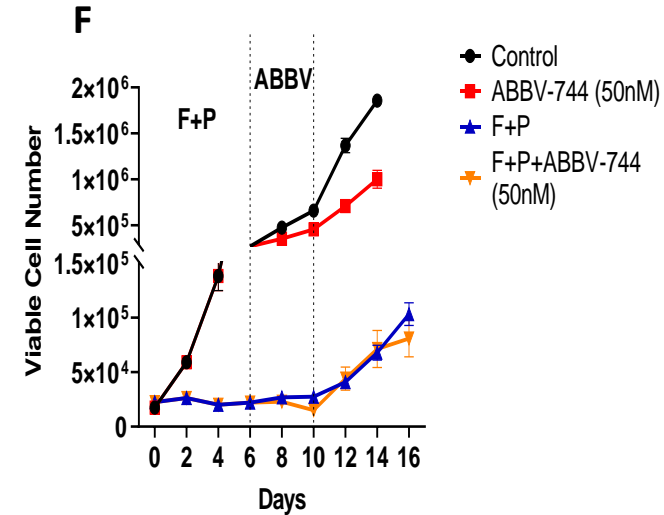
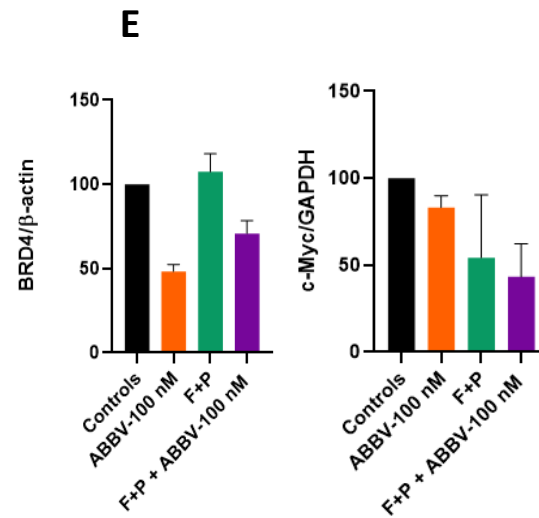
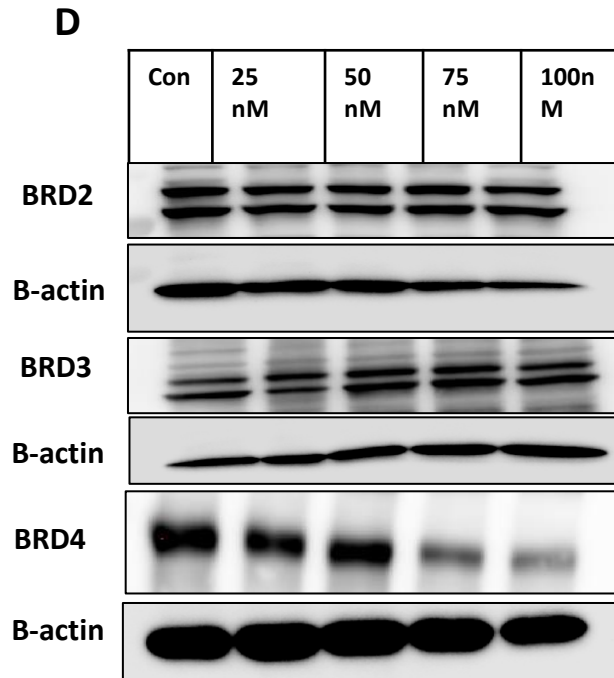
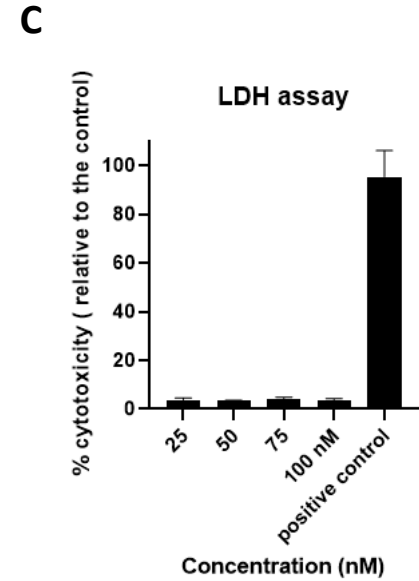
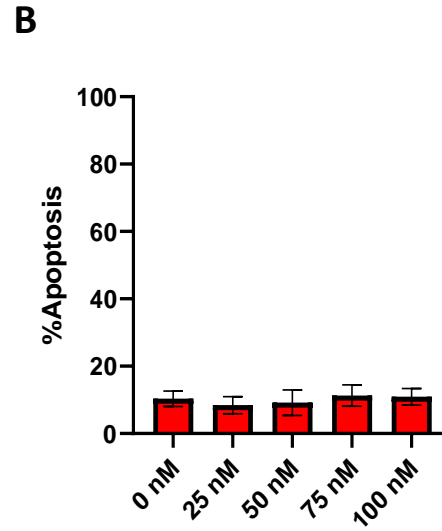
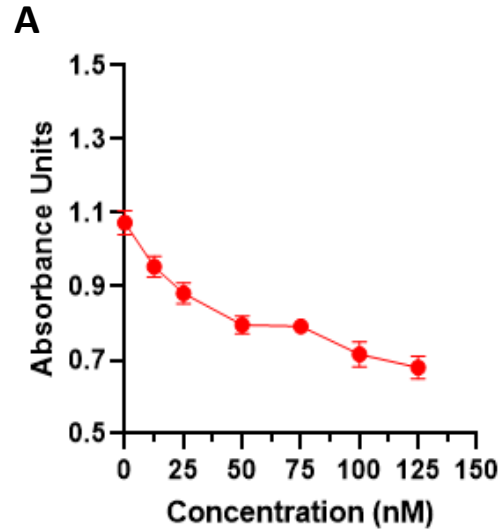


## MCF-7 WT cells

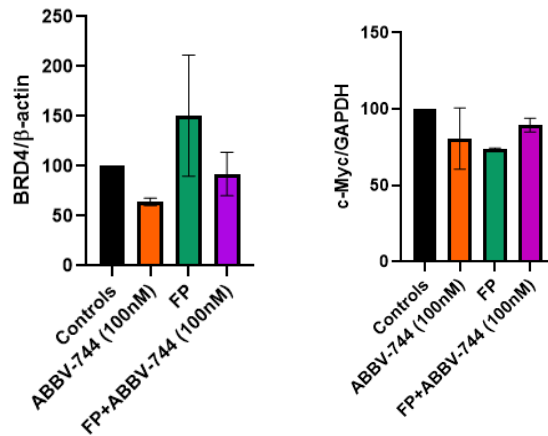
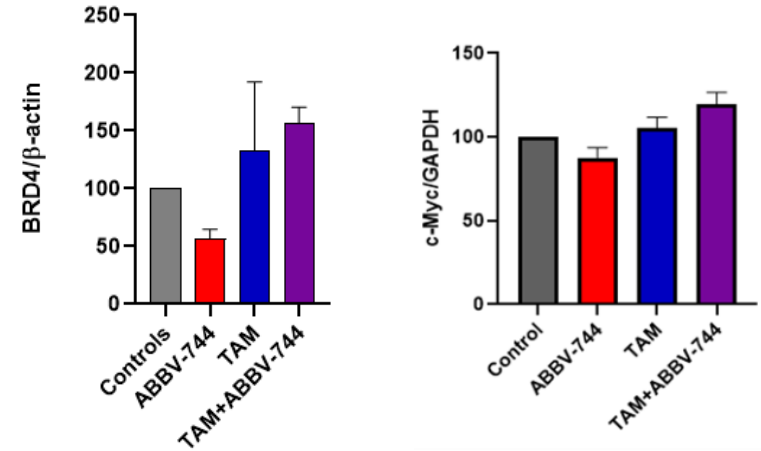


**Supplemental Figure S1. ARV-825 suppresses levels of BRD2 and BRD3.** Western blotting for BRD2 and BRD3 after 4 days of ARV-825 treatment. All images are representative blots from at least two/three independent experiments.

# MCF-7 WT cells



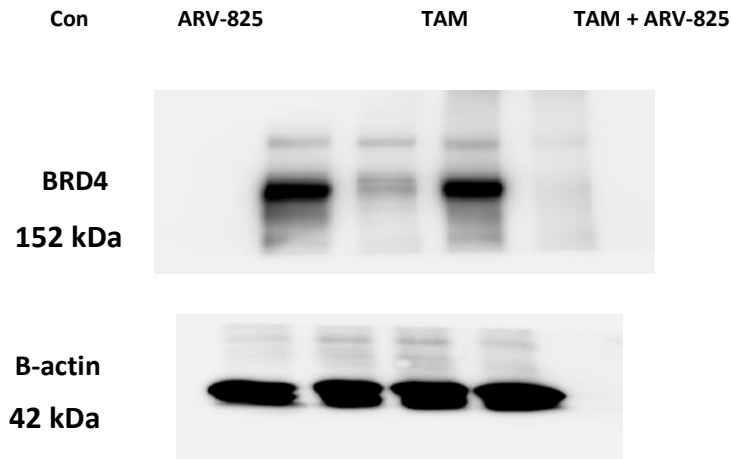
**Supplemental Figure S2. ABBV-744 induces a growth inhibitory response in MCF-7 cells without apoptosis induction.** (A) Cells were treated with ABBV-744 (12.5, 25, 50, 75, 100 and 125 nM) for 4 days; a dose response curve was determined using the MTS viability assay. (B) Cells were treated with ABBV-744 (25, 50, 75, and 100 nM) for 4 days. Apoptosis was evaluated by flow cytometry using an Annexin V-FTIC Apoptosis Detection Kit at day 4 of the indicated treatments of ABBV-744. (C) Cytotoxicity was measured using the LDH assay at day 4 of the indicated treatments of ABBV-744. (D) Western blotting for BRD2, BRD3 and BRD4 at day 4 of ABBV-744 treatments. (E) Quantification of BRD4 and c-Myc western blots in Figure 3E using Image J software. (F) MCF-7 cells were treated with fulvestrant (100 nM) plus palbociclib (1  $\mu$ M) for 6 days followed by ABBV-744 (50 nM) addition starting from day 6 to 10. Cell viability was monitored over a period of 16 days by trypan blue exclusion. All images are representative fields or blots from at least two/three independent experiments.

**A****T47D cells****B****MCF-7 WT cells**

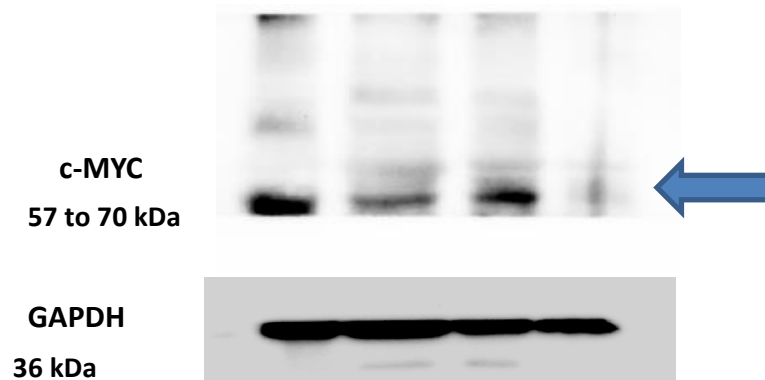
**Supplemental Figure S3. ABBV-744-mediated growth inhibition depends on BRD4 suppression when combined with fulvestrant plus palbociclib. (A and B) Quantification of BRD4 and c-Myc western blots in Figure 5F and 6C using Image J software, respectively. All images are representative fields or blots from at least two/three independent experiments.**

## **Original blots and quantification**

## Original blots for Figure 1E

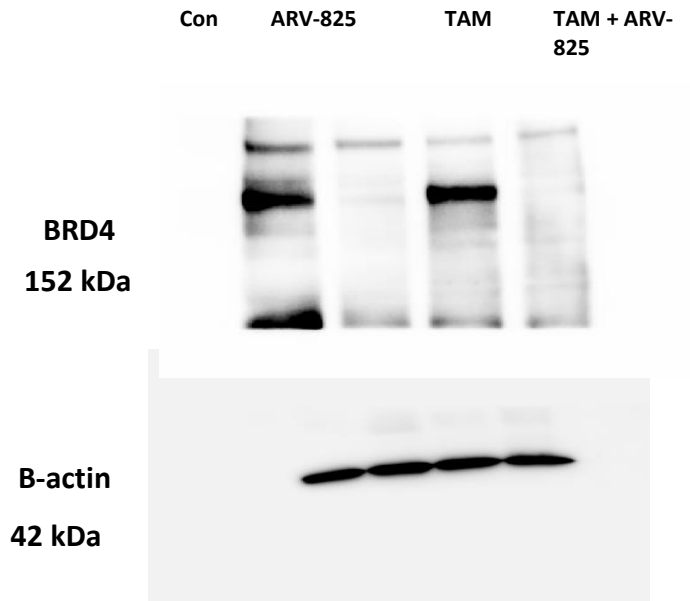


Normalized BRD4:B-actin ratio	1	0.40	0.85	0.19
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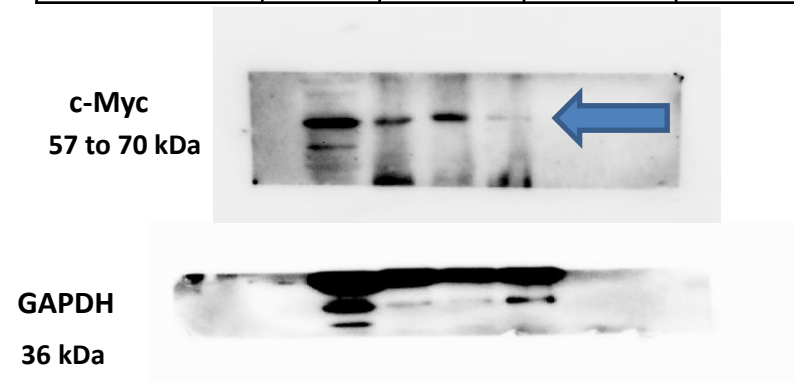


Normalized C-Myc:GAPDH ratio	1	0.66	1.06	0.35
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## Original blots for Figure 2E

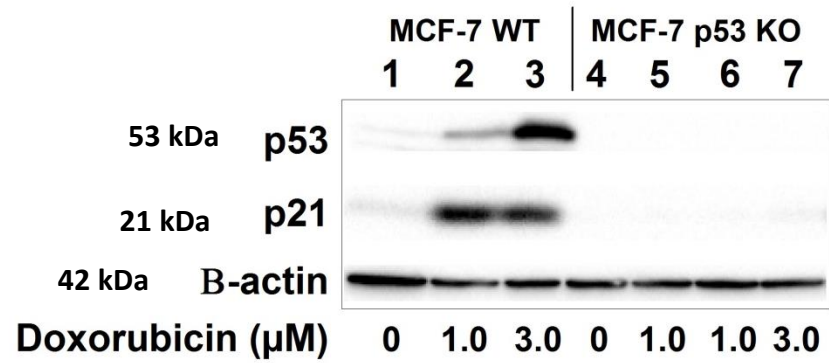


Normalized BRD4:B-actin ratio	1	0.08	0.78	0.11
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Normalized C-Myc:GAPDH ratio	1	0.72	0.84	0.40
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## Original blots for Figure 2A



Normalized p53:B-actin ratio	1	8.41	26.28	0.68	0.31	0.26	0.31
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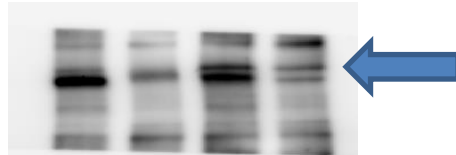
Normalized p21:B-actin ratio	1	14.85	11.24	0.78	0.33	0.29	0.65
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## Original blots for Figure 3E

Con	ABBV-744 (100nM)	FP	FP+ ABBV-744 (100nM)
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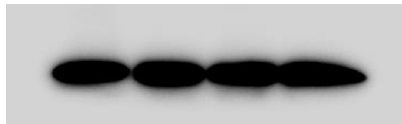
**BRD-4**

152 kDa



**B-actin**

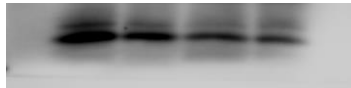
42 kDa



Normalized BRD4:B-actin ratio	1	0.48	1.07	0.70
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**c-Myc**

57 to 70 kDa



**GAPDH**

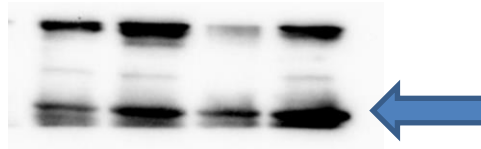
36 kDa



Normalized c-Myc:GAPDH ratio	1	0.83	0.54	0.43
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53 kDa

**p53**



36 kDa

**GAPDH**



Normalized p53:GAPDH ratio	1	1.20	1.09	1.48
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## Original blots for Figure 3F

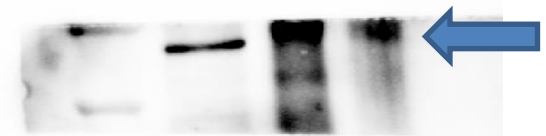
Control

BRD4 IP

p53 IP

**BRD-4**

152 kDa



Normalized intensity	1	2.05	1.66
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53 kDa

**p53**



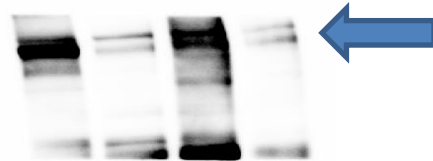
Normalized intensity	1	2.48	3.34
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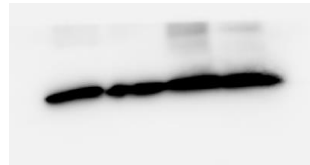
## Original blots for Figure 4C

Con	ABBV-744 (100nM)	FP	FP+ ABBV-744 (100nM)
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**BRD4**  
152 kDa



42 kDa **B-actin**



Normalized BRD4:B-actin ratio	1	0.14	0.79	0.11
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**c-Myc**  
57 to 70 kDa



36 kDa **GAPDH**

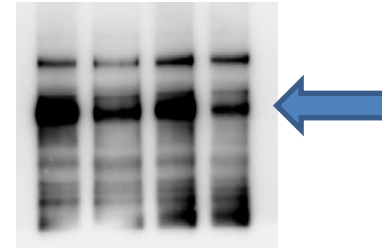


Normalized c-Myc:GAPDH ratio	1	1.06	0.69	0.64
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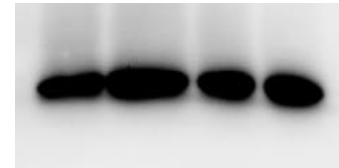
## Original blots for Figure 5F

Con	ABBV-744	FP	FP + ABBV-744
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**BRD-4**  
152 kDa

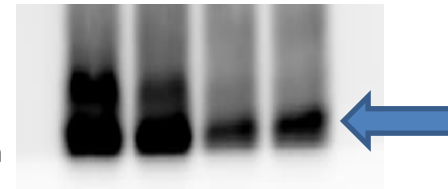


**B-actin**  
42 kDa

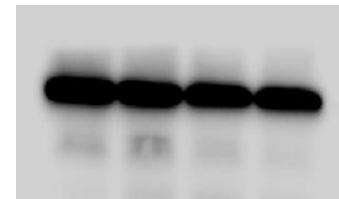


Normalized BRD4:B-actin ratio	1	0.64	1.50	0.92
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**c-Myc**  
57 to 70 kDa



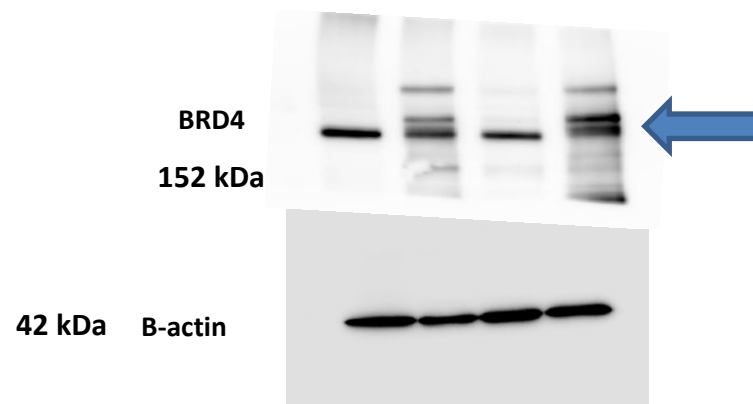
**GAPDH**  
36 kDa



Normalized c-Myc:GAPDH ratio	1	0.80	0.73	0.89
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# Original blots for Figure 6C

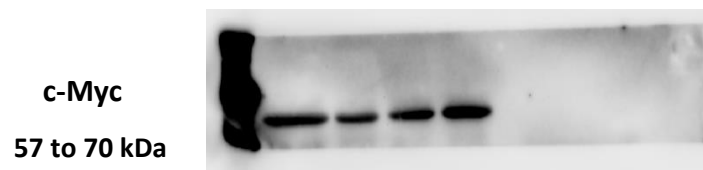
Con	ABBV-744 (100nM)	TAM	TAM + ABBV- 744(100nM)
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Normalized BRD4:B-actin ratio	1	0.56	1.32	1.56
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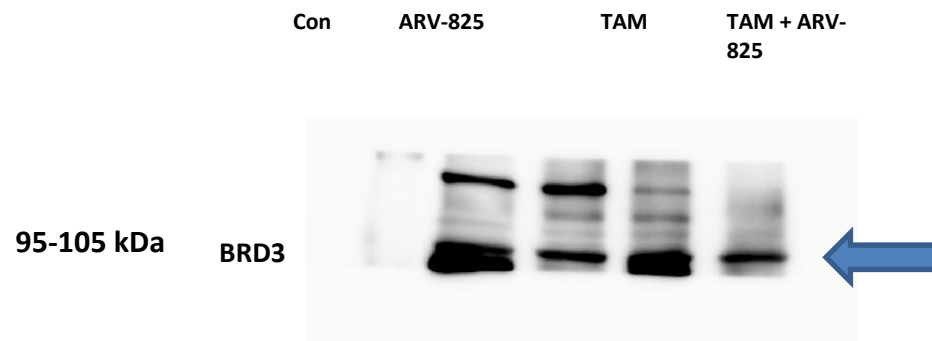


Normalized p53:GAPDH ratio	1	1.49	1.42	2.14
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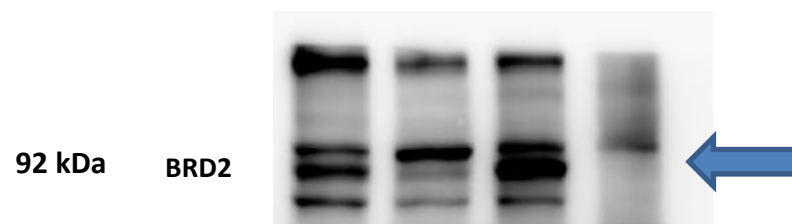


Normalized c-Myc:GAPDH ratio	1	0.87	1.11	1.12
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## Original blots for Supplementary Figure 1



Normalized BRD3:B-actin ratio	1	0.53	0.77	0.51
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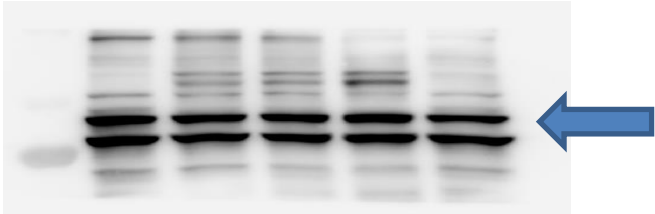
Normalized BRD2:B-actin ratio	1	0.94	1.06	0.47
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Original blots for Supplementary Figure 2D

con	25nM	50nM	75nM	100nM
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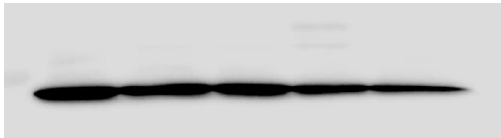
**BRD2**

92 kDa



**B-actin**

42 kDa



Normalized BRD2:B-actin ratio

1

0.96

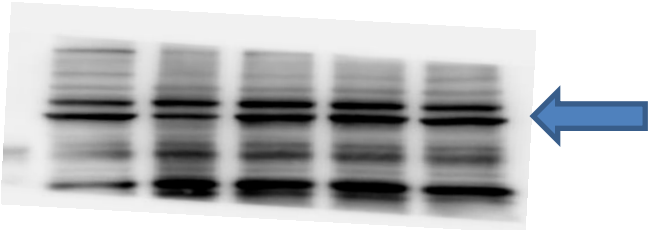
0.92

1.09

1.23

**BRD3**

95-105 kDa



**B-actin**

42 kDa



Normalized BRD3:B-actin ratio

1

1.19

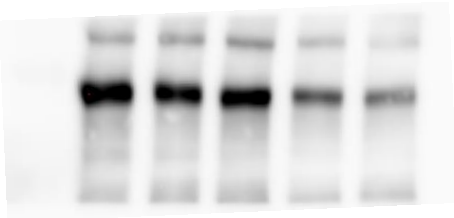
1.10

1.30

1.23

**BRD4**

152 kDa



**B-actin**

42 kDa



Normalized BRD4:B-actin ratio

1

1.16

0.96

1.14

0.49