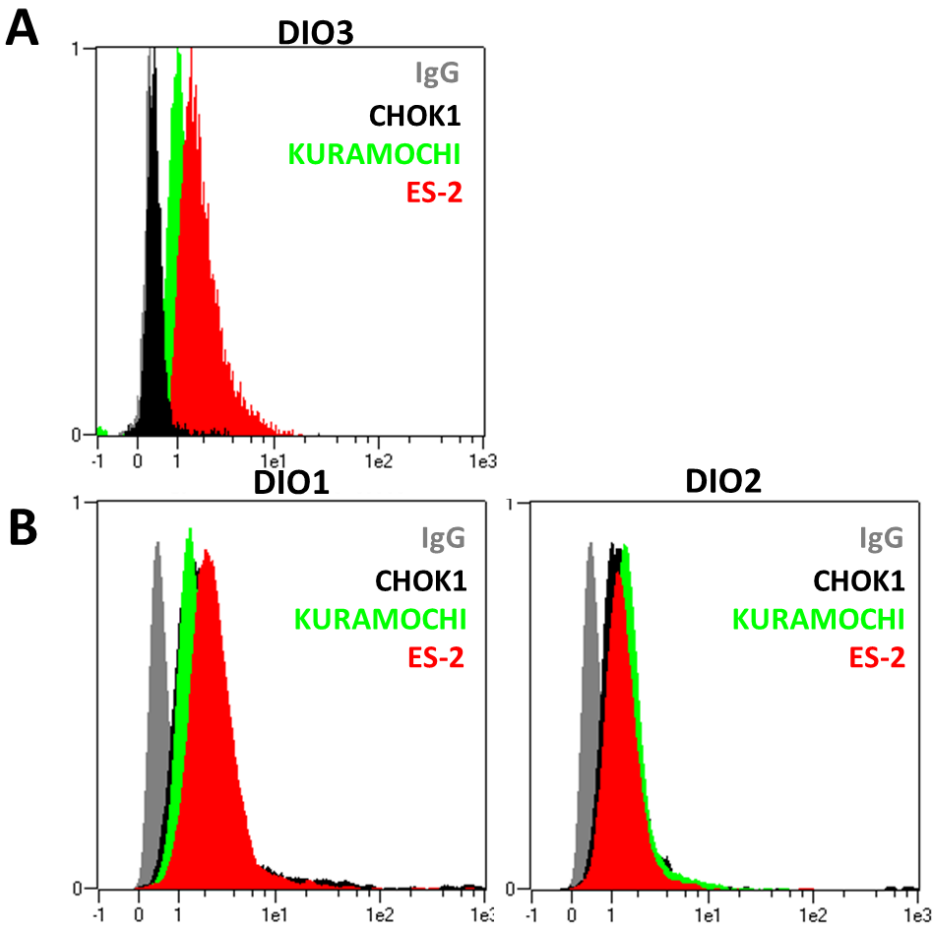
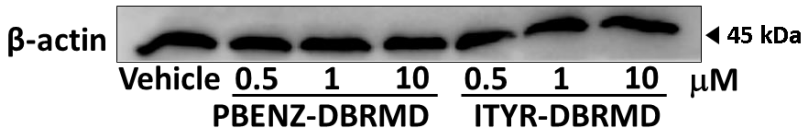
Supplementary Table and Figures

	Protein	Antibody	Type	Company	Dilution	Conditions
FC	DIO1	ab135711	Rabbit	Abcam, Cambridge, MA, USA	1:50	30 min - 4˚C
	DIO2	11790-1-AP	Rabbit	Proteintech, Manchester, UK	1:50	30 min - 4˚C
	DIO3	NBP1-05767-AF647	Rabbit	Novus, Centennial, Colorado, USA	1:50	30 min - 4˚C
WB	DIO3	NBP1-05767	Rabbit	Novus, Centennial, Colorado, USA	1:2000	1 hr -room temp
	PKM2	4053	Rabbit	Cell Signaling, Leiden, The Netherlands	1:1000	o/n 4˚C
	c-Myc	ab32072	Rabbit	Abcam, Cambridge, MA, USA	1:1000	o/n 4˚C
	p53	HAF1355	Mouse	R&D Systems, Minneapolis, MN, USA	1:5000	1 hr -room temp
	p-ERK p44/42	4370	Rabbit	Cell Signaling, Leiden, The Netherlands	1:2000	1 hr -room temp
	PCNA	sc-7907	Rabbit	Santa Cruz Biotechnology, Dallas, TX, USA	1:750	o/n 4˚C
	Cyclin D1	2978	Rabbit	Cell Signaling, Leiden, The Netherlands	1:1000	o/n 4˚C
	CDK4	12790	Rabbit	Cell Signaling, Leiden, The Netherlands	1:1000	o/n 4˚C
	β-actin	8457	Rabbit	Cell Signaling, Leiden, The Netherlands	1:1000	1 hr -room temp
	β-catenin	8480	Rabbit	Cell Signaling, Leiden, The Netherlands	1:1000	o/n 4˚C
	PAX8	10336	Rabbit	Proteintech, Manchester, UK	1:2000	o/n 4˚C
IHC	Ki67	ab16667	Rabbit	Abcam, Cambridge, MA, USA	1:200	Ventana stainer
	DIO3	NBP1-05767	Rabbit	Novus, Centennial, Colorado, USA	1:200	Ventana stainer

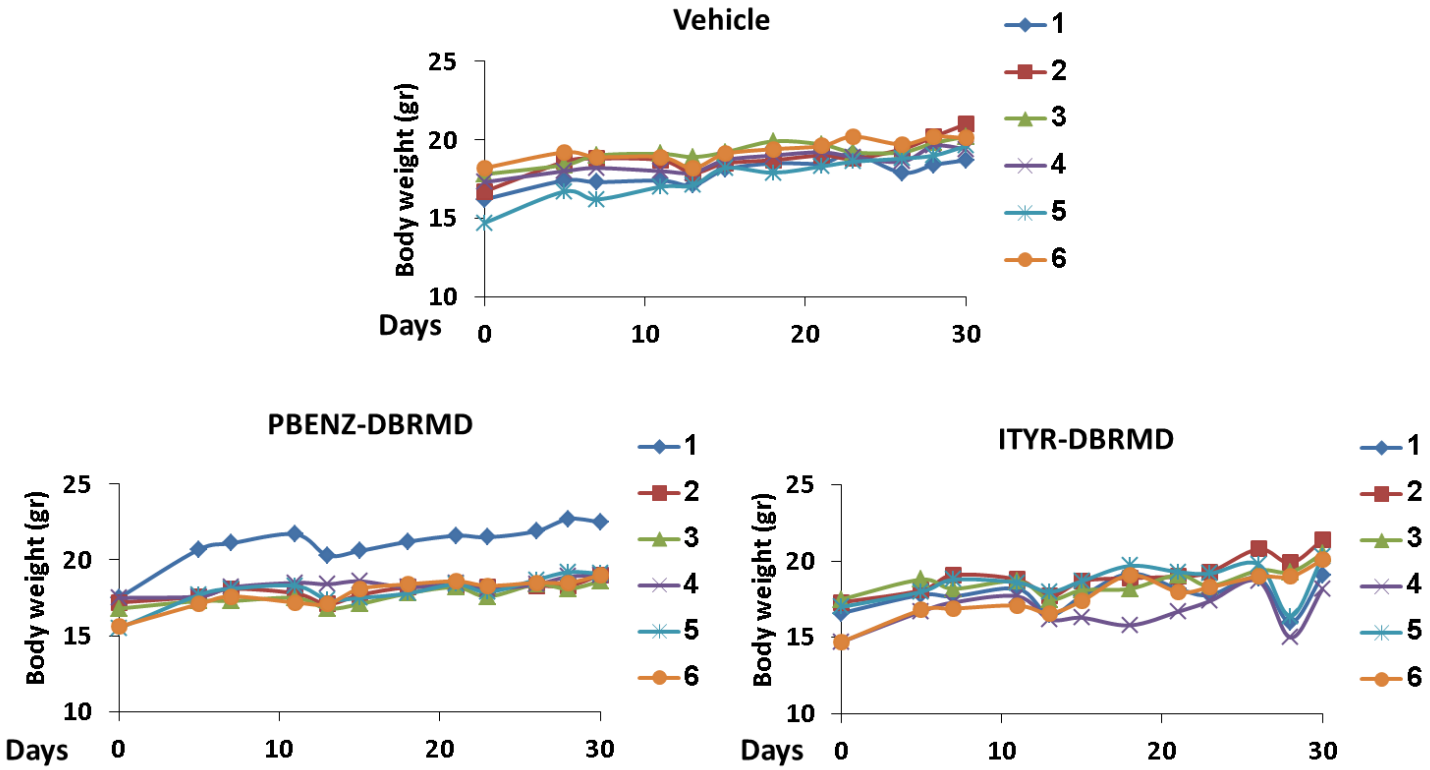
Table S1. Primary antibodies list



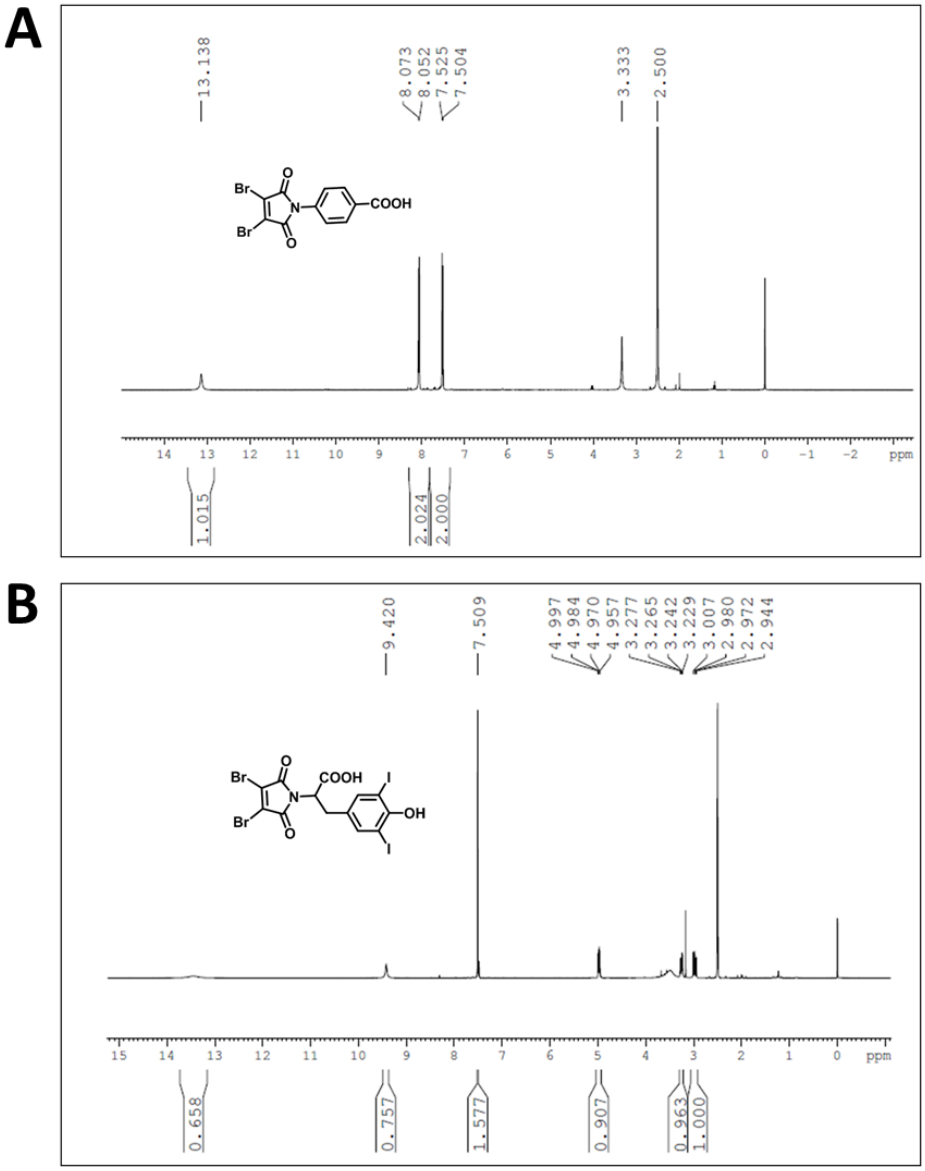
Supplementary Figure S1: (A) DIO3 and **(B)** DIO1 and DIO2 expression in normal ovaries (CHOK1) and HGSOC (ES-2 and KURAMOCHI) cell lines by Flow cytometry. IgG was used as a negative control.



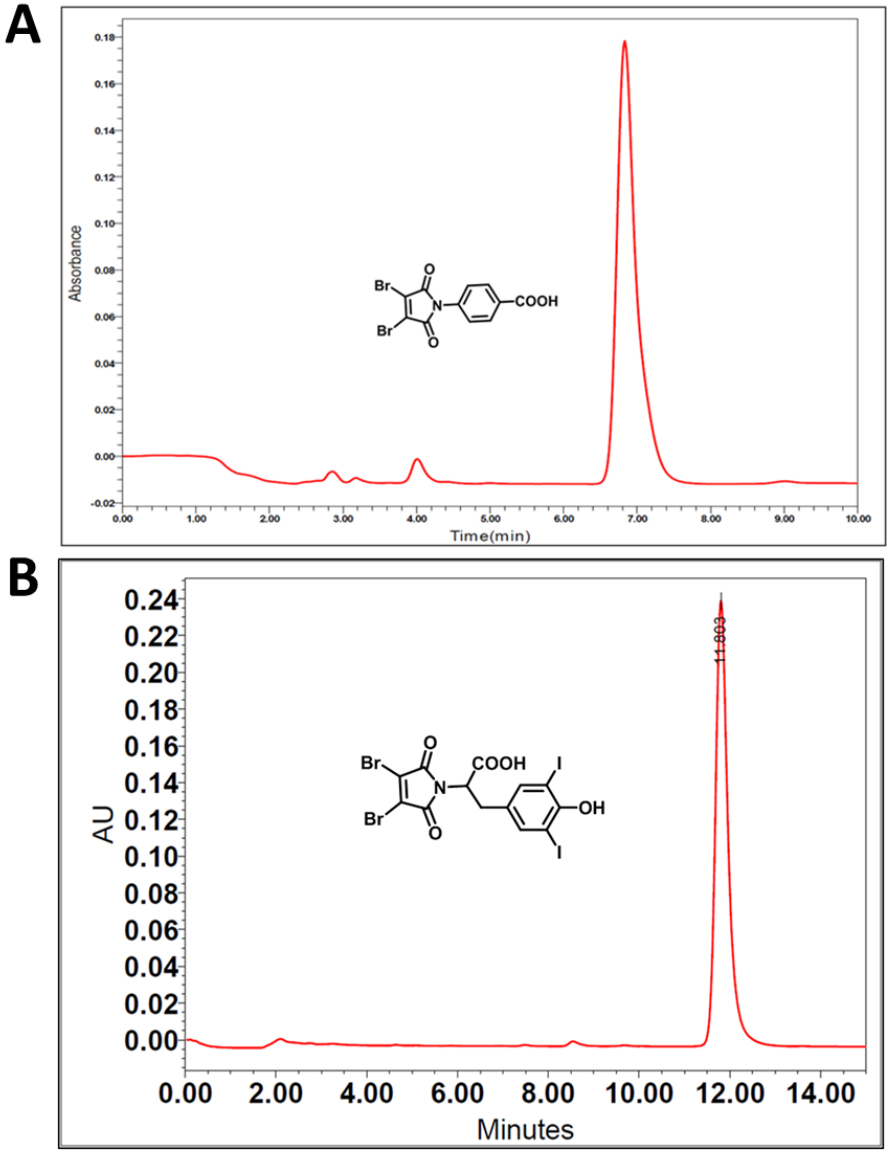
Supplementary Figure S2: β-actin as loading control for PKM2 and c-Myc.



Supplementary Figure S3: Mice body weight during the experimental period (gr) for Vehicle, PBENZ-DBRMD and ITYR-DBRMD treatment groups (n=6 in each group)



Supplementary Figure S4: ^{1}H NMR of **(A)** PBENZ-DBRMD and **(B)** ITYR-DBRMD. The NMR spectrum was recorded on a 400 MHz spectrometer using DMSO-d_6 as solvent and tetramethylsilane (TMS) as internal standard.



Supplementary Figure S5: HPLC chromatograph of **(A)** PBENZ-DBRMD (Percentage of purity: 97%) and **(B)** ITYR-DBRMD (Percentage of purity: 99%). The purity is matching with the ^{1}H NMR data