**TME of PTEN/p53-deficient prostate tumors.** Single cell suspension of PTEN/p53-deficient prostate tumors were treated with copanlisib (C, 100 nM), PD-1 antibody (P, 10 μg/mL) or their combination under normal and AD condition for 24 hours. *Ex vivo* conditioned media were collected from these groups and analyzed using cytokine array kits.

Cytokine array on ex vivo conditioned media								
Sr. No.	Cytokines	%changes in cytokine secretion (relative to untreated)						
		Р	AD	AD+P	С	C+P	AD+C	AD+C+P
Increased following AD+C+P treatment								
1	IL1α	-26.333300	61.021150	85.69451	-100.000000	-100.000000	88.369850	61.069800
2	TNFα	-100.000000	8.506699	144.939300	-100.000000	-100.000000	41.572050	51.814760
3	GM-CSF	19.278860	88.257380	107.41090	-100.000000	-100.000000	12.352890	48.580550
4	CCL22	9.006961	31.98788	65.60859	-100.000000	-100.000000	49.451760	44.71808
5	CCL5	0.000000	22.325350	27.397450	0.000000	0.000000	24.253130	27.535750
6	IL-6	0.000000	25.763060	32.040120	0.000000	0.000000	24.487010	25.972800
7	CXCL16	11.484380	7.987243	26.19388	15.674120	-8.284720	14.984800	19.13644
Decreased following AD+C+P treatment								
8	SerpinF1	-39.133400	-34.827000	-24.397000	-100.000000	-70.369900	-100.000000	-100.000000
9	CCL6	14.95199	-40.8020	-32.5690	-37.9043	-52.0272	-54.0922	-51.2523
10	IGFBP-2	24.223760	62.621260	37.45212	-100.000000	-100.000000	-100.000000	-51.095000
11	ICAM1	-5.549780	24.392290	-8.29913	-100.000000	-17.097000	-35.209400	-41.958200
12	LDLR	6.606445	23.173080	13.60238	-100.000000	-52.781700	-65.185800	-40.319100
13	RBP4	9.331950	-26.164400	14.170590	-22.208400	-6.533690	-7.474560	-34.426600
14	IGFBP-3	7.288951	-2.700480	-6.85009	-27.023100	-26.258700	-27.663900	-28.235500
15	PTX-3	10.519660	-28.154300	-19.312400	-5.962720	-15.578100	-33.083100	-24.402200
16	M-CSF	1.004784	5.565133	14.034590	-100.000000	-26.022500	-27.562600	-23.147500
Red color = ADT/copanlisib/aPD-1 regulated cytokines								