

Table S11. Next treatment after anti-PD-1 monotherapy failure (n=166)

Treatment after anti-PD-1 monotherapy failure	Total	Resistance type	
		Primary (n=123)	Secondary (n=43)
<b>Local/Regional</b>	58 (35)	38 (31)	20 (47)
Surgery	27 (16)	15 (12)	12 (28)
Radiotherapy	31 (19)	23 (19)	8 (19)
<b>Next systemic treatment</b>	82 (49)	70 (57)	12 (28)
<b>Immunotherapy</b>	28 (17)	25 (20)	3 (7)
Anti-CTLA-4 monotherapy	15 (9)	14 (11)	1 (2)
Anti-CTLA-4/anti-PD-1 combo	4 (2)	3 (2)	1 (2)
Other anti-CTLA-4 combo	1 (1)	1 (1)	0
Other anti-PD-1/PD-L1 combo	6 (4)	6 (5)	0
Others	2 (1)	1 (1)	1 (2)
<b>MAPK pathway inhibitor</b>	22 (13)	19 (15)	3 (7)
BRAFi/MEKi	20 (12)	17 (14)	3 (7)
BRAFi monotherapy	1 (1)	1 (1)	0
Other combo	1 (1)	1 (1)	0
<b>Chemotherapy +/- anti-angiogenesis agent</b>	25 (15)	20 (16)	5 (12)
<b>Others</b>	7 (4)	6 (5)	1 (2)