

Table SI. Genomic mutation profile of patients with NSCLC.

Case no.	Cancer type	Immune checkpoint inhibitor regimen	Genetic mutation profile			
			EGFR	ALK	ROS1	BRAF
1	NSCLC	Nivolumab	-	-	-	Unexamined
2	NSCLC	Nivolumab	Unexamined	Unexamined	Unexamined	Unexamined
3	NSCLC	Nivolumab	-	-	Unexamined	Unexamined
4	NSCLC	Nivolumab	-	-	Unexamined	Unexamined
5	NSCLC	Nivolumab	Exon 20 insertion	-	-	Unexamined
6	NSCLC	Nivolumab	-	-	-	-
7	NSCLC	Nivolumab	Exon 19 deletion	-	Unexamined	Unexamined
8	NSCLC	Pembrolizumab	Unexamined	Unexamined	Unexamined	Unexamined
9	NSCLC	Pembrolizumab	-	-	Unexamined	Unexamined
10	NSCLC	Pembrolizumab	-	-	-	-
11	NSCLC	Pembrolizumab	-	-	Unexamined	Unexamined
12	NSCLC	Pembrolizumab	-	-	-	Unexamined
13	NSCLC	Pembrolizumab	-	-	Unexamined	Unexamined
14	NSCLC	Pembrolizumab	Unexamined	Unexamined	Unexamined	Unexamined
15	NSCLC	Pembrolizumab	-	-	-	Unexamined
16	NSCLC	Pembrolizumab	-	-	-	Unexamined
17	NSCLC	Pembrolizumab	-	-	-	-

NSCLC, non-small cell lung cancer.

Table SII. Percentage of monocytes in every monocyte subset per sum of three monocyte subsets.

Case no.	CD14 ^{low} CD16 ⁺ non-classical monocyte subset, %	CD14 ^{high} CD16 ⁺ intermediate monocyte subset, %	CD14 ^{high} CD16 ⁻ classical monocyte subset, %
1	95.78	0.26	3.96
2	4.14	17.93	77.93
3	92.69	0.41	6.89
4	7.56	8.62	83.82
5	2.64	10.23	87.12
6	11.42	46.50	42.08
7	4.72	14.91	80.37
8	3.23	7.27	89.50
9	2.07	24.66	73.28
10	4.99	23.83	71.17
11	3.31	4.74	91.95
12	8.52	51.22	40.26
13	6.84	16.18	76.98
14	4.03	28.63	67.34
15	3.65	11.30	85.04
16	4.65	16.92	78.43
17	2.75	11.50	85.75
18	74.39	1.39	24.22
19	79.52	0.60	19.88
20	2.99	32.38	64.63
21	8.81	60.18	31.01
22	1.64	9.39	88.97
23	3.22	38.58	58.20
24	8.88	4.88	86.24
25	3.02	4.87	92.10
26	2.90	4.67	92.44
27	4.03	12.41	83.56
28	5.57	41.19	53.25
29	6.87	13.22	79.92
30	9.06	67.08	23.85
31	3.98	9.53	86.48
32	4.53	16.76	78.72

33	7.94	15.41	76.65
34	4.62	24.63	70.75
35	9.79	19.38	70.83
36	4.05	25.50	70.44
37	2.12	3.21	94.67
38	4.81	5.36	89.83
39	8.40	6.87	84.73
40	6.60	7.24	86.16
41	4.77	3.42	91.81
42	6.89	8.60	84.50
43	15.63	51.88	32.49
44	11.00	11.45	77.56

Table SIII. Percentage of PD-L1⁺ monocyte subset per sum of three monocyte subsets by flow cytometry analysis and PD-L1 expression on tumor cell membrane by IHC analysis.

Case no.	Percentage of monocytes per sum of three monocyte subsets			PD-L1 expression on tumor cells assessed with IHC
	PD-L1 ⁺ CD14 ^{low} CD16 ⁺ non-classical monocytes, %	PD-L1 ⁺ CD14 ^{high} CD16 ⁺ intermediate monocytes, %	PD-L1 ⁺ CD14 ^{high} CD16 ⁻ classical monocytes, %	
1	27.40	0.09	1.96	20-30
2	0.65	4.69	16.56	N/A
3	12.86	0.05	3.94	70-80
4	0.82	3.84	27.77	50-60
5	0.62	4.31	34.48	10-20
6	1.24	12.44	9.92	<1
7	2.48	6.19	26.02	<1
8	1.04	5.56	69.12	70-80
9	0.55	19.42	46.38	80-90
10	2.67	16.75	36.84	60-70
11	0.17	2.34	52.15	60-70
12	4.38	22.83	14.14	60-70
13	4.32	12.23	50.73	70-80
14	2.06	20.91	39.79	>90
15	0.43	4.06	28.94	10-20
16	0.17	1.73	6.15	<1
17	0.11	1.11	5.07	70-80
18	9.90	0.57	5.65	1-10

19	8.55	0.40	7.95	1-10
20	1.74	20.67	35.24	N/A
21	5.89	53.56	26.47	<1
22	0.78	5.48	29.24	N/A
23	0.61	4.59	3.59	<1
24	0.52	1.12	13.43	10-20
25	0.54	0.58	4.57	10-20
26	0.64	1.45	3.04	N/A
27	0.90	4.97	32.17	N/A
28	3.62	36.29	44.20	N/A
29	2.06	4.62	23.51	N/A
30	4.40	31.51	6.51	N/A
31	1.25	2.26	16.71	N/A
32	1.64	4.18	13.72	N/A
33	4.19	12.84	43.74	N/A
34	3.76	18.56	52.37	N/A
35	7.26	9.56	23.92	N/A
36	2.91	18.28	46.33	N/A
37	0.83	0.75	10.48	N/A
38	0.67	1.93	21.00	N/A
39	0.68	1.72	16.94	N/A
40	4.00	2.94	11.34	N/A
41	0.13	0.21	1.80	N/A
42	0.47	1.57	13.66	N/A
43	7.93	13.56	3.85	N/A

44	2.73	1.76	6.44	N/A
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N/A, not applicable; IHC, immunohistochemistry; PD-1, programmed death-1; PD-L1, programmed death-ligand 1.

Table SIV. Percentage of PD-1⁺ cells of each monocyte subset per sum of three monocyte subsets.

Case no.	Percentage to the sum of three monocyte subsets		
	PD-1 ⁺ CD14 ^{low} CD16 ⁺ non-classical monocytes, %	PD-1 ⁺ CD14 ^{high} CD16 ⁺ intermediate monocytes, %	PD-1 ⁺ CD14 ^{high} CD16 ⁻ classical monocytes, %
1	0.94	0.00	0.00
2	0.12	0.14	0.22
3	0.52	0.00	0.00
4	0.80	0.50	0.18
5	0.09	0.05	0.14
6	0.09	0.12	0.03
7	0.47	0.17	0.08
8	0.09	0.06	0.07
9	0.11	0.24	0.14
10	0.07	0.14	0.06
11	0.17	0.08	0.22
12	0.23	0.24	0.07
13	0.12	0.23	0.07
14	0.34	0.61	0.25
15	0.09	0.07	0.04
16	0.21	0.14	0.26
17	0.04	0.06	0.19
18	2.86	0.41	0.03
19	0.80	0.00	0.00
20	0.18	0.36	0.20

21	0.24	0.50	0.02
22	0.09	0.21	0.16
23	0.06	0.11	0.05
24	0.37	0.13	0.04
25	0.07	0.24	0.57
26	0.03	0.11	0.16
27	1.33	0.46	0.34
28	0.12	0.84	0.58
29	0.04	0.10	0.04
30	0.16	0.15	0.04
31	0.11	0.06	0.22
32	2.19	1.00	1.09
33	1.15	2.36	4.18
34	0.91	1.45	1.71
35	0.37	0.18	0.21
36	0.68	0.48	0.86
37	0.07	0.07	0.18
38	0.04	0.05	0.03
39	0.14	0.00	0.08
40	0.39	0.18	0.20
41	0.05	0.03	0.02
42	0.05	0.04	0.06
43	0.53	0.37	0.07
44	0.10	0.03	0.12

Table SV. Mean values of CD68-positive area analyzed by immunohistochemical analysis.

Case no.	Mean CD68-positive area (μm^2)
1	N/A
2	N/A
3	426499
4	N/A
5	50319
6	847970
7	1513693
8	N/A
9	30631
10	1795983
11	N/A
12	N/A
13	N/A
14	1073863
15	N/A
16	662687
17	343619
18	225467
19	89490
20	94050
21	212461

22	157039
23	842882
24	N/A
25	309068
26	50813
27	N/A
28	39728
29	16184
30	179673
31	107294
32	N/A
33	644961
34	95813
35	105040
36	133547
37	761172
38	N/A
39	239134
40	N/A
41	141701
42	1656916
43	47471
44	920600

N/A, not applicable.