

**S2 Table.** Samples used for evaluating clinical performance

Case No.	Sex	Primary site	Histologic diagnosis	Tumor cellularity	DI N	Total reads	Total bases (Mb)	Mapped bases (Mb)	Mapped bases (%)	On-target bases (Mb)	On_target bases (%)	Duplicate ratio (%)	On-target coverage (x)	Oncogenic mutation	Oncogenic fusion	Amplification	Deletion	Targetable alteration	MSI	TMB
1	Female	Endometrium	Endometrioid adenocarcinoma	T-80%	4.7	10,030,478	757	752	99.4	465	68.7	17.69	331.3	<i>PTEN</i> :p.D92Y, <i>PTEN</i> :p.R173H, <i>ARID1A</i> :p.Q944*, <i>PIK3R1</i> :p.V671Hfs*15, <i>PIK3R2</i> :p.G373R	No	No	No	No	MSS	3.1
2	Female	Ovary	High-grade serous carcinoma	T-90%	2.0	12,301,374	928	922	99.4	610	72.3	35.85	321.2	<i>TP53</i> :p.S241T, <i>ATM</i> :p.Q180*, <i>ATM</i> Y2614*, <i>NF1</i> :p.K1430*	No	<i>MYC</i> , <i>EPPK1</i> , <i>PABPC1</i> , <i>RSPO2</i> : amplification (5)	No	No	MSS	10.9
3	Female	Ovary	Clear cell carcinoma	T-95%	3.6	8,903,178	672	669	99.6	433	72.2	25.94	273.4	<i>ARID1A</i> :p.R1335*, <i>SPOP</i> :p.E50K	No	No	No	No	MSS	3.1
4	Female	Endometrium	Mixed serous carcinoma and Clear cell carcinoma	T-90%	2.8	14,242,082	1075	1,069	99.5	699	72.3	29.71	411.9	<i>TP53</i> :p.N210Kfs*6, <i>PIK3CA</i> :p.M1043I	No	No	No	No	MSS	1.6
5	Female	Ovary	Carcinosarcoma	T-95%	5.2	7,307,250	551	545	98.9	249	50.8	12.26	185.3	<i>TP53</i> (p.N235_N239del)	No	<i>CCND3</i> , <i>BRD2</i> , <i>CDKN1A</i> , <i>DDR1</i> , <i>FANCE</i> , <i>GTPBP2</i> , <i>NOTCH4</i> (copy number gain: 5)	<i>NF1</i> (Deletion: 0)	No	MSS	6.3
6	Female	Soft tissue	Leiomyosarcoma, metastatic	T-70%	8.4	9,050,032	683	678	99.4	388	64.6	10.51	304.4	<i>TP53</i> (p.K164E)	No	No	<i>RBI</i> (Deletion: 0)	No	MSS	1.6
7	Female	Ovary	High-grade serous carcinoma	T-90%	6.8	9,318,778	703	699	99.4	395	63.8	9.95	312.8	<i>TP53</i> (p.I195T)	No	<i>MYC</i> , <i>EPPK1</i> (copy number gain: 8), <i>PABPC1</i> , <i>RSPO2</i> (5)	No	No	MSS	1.6
8	Female	Uterine Cervix	Invasive adenocarcinoma	T-60%	7.7	9,302,962	702	694	98.9	299	48.7	9.33	235.8	<i>PIK3CA</i> (p.E545K)	No	No	No	No	MSS	1.6

9	male	Lung	Non-small cell carcinoma	T-60%	7.1	10,773,890	813	804	98.9	353	49.4	12.43	263.1	<i>TP53</i> (p.R158L), <i>NFE2L2</i> (p.R34Q)	No	No	<i>CDKN2A</i> , <i>CDKN2B</i> , <i>MTAP</i> deletion (0)	No	MSS	3.1
10	male	Lung	Adenocarcinoma	T-80%	3.9	11,328,816	855	843	98.7	394	51.6	15.3	276.6	<i>KRAS</i> (p.G12V), <i>TP53</i> (p.R248W), <i>CDKN2A</i> (p.L16Pfs*9), <i>TET2</i> (p.G1891Afs*13), <i>TP53</i> (p.K164E)	No	No	No	No	MSS	3.1
11	Female	Lung	Leiomyosarcoma, metastatic	T-95%	7.5	10,832,576	818	812	99.4	463	64.5	9.72	367.5	<i>TP53</i> (p.K164E)	No	<i>MAP2K4</i> (copy number gain:15)	No	No	MSS	3.1
12	male	Soft tissue	GIST	T-95%	5.9	10,661,010	805	800	99.4	468	65.9	12.44	357.8	<i>NF1</i> (p.K164*), <i>MAX</i> (splice site mutation)	No	No	No	No	MSS	3.1
13	male	Lung	Non-small cell carcinoma	T-80%	5.9	11,460,528	865	860	99.4	492	64.8	13.86	369.3	<i>TP53</i> (p.H179R)	No	No	No	No	MSS	3.1
14	Female	Endometrium	Serous carcinoma	T-40%	6.5	5,390,800	407	403	99.2	238	66	8.84	191.3	<i>PIK3CA</i> (p.E542K), <i>TP53</i> (p.R248Q), <i>PPP2R1A</i> (p.S256Y)	No	No	No	No	MSS	3.1
15	Female	Endometrium	Carcinosarcoma	T-70%	6.1	6,457,524	487	483	99.3	288	66.4	10.43	226.9	<i>PIK3CA</i> (p.E545K), <i>PTEN</i> (p.R130G), <i>ARID1A</i> (p.H203Qfs*29), <i>TP53</i> (p.R273C), <i>MED12</i> (splice site mutation), <i>RB1</i> (p.R255*)	No	No	No	No	MSS	7.8
16	Female	Ovary	Endometrioid adenocarcinoma	T-90%	6.3	9,117,480	688	684	99.4	393	64.9	14.52	290.9	<i>PIK3CA</i> (p.Y1021C), <i>KRAS</i> (p.G12C)	No	<i>KRAS</i> (amplification:6)	No	No	MSS	4.7
17	Female	Ovary	Endometrioid carcinoma	T-90%	6.4	6,658,442	502	499	99.3	294	66	10.56	231	<i>POLE</i> (p.P286R), <i>PTEN</i> (p.R355*), <i>CTNNB1</i> (p.G34E), <i>CTNNB1</i> (p.S45F), <i>ARID1A</i> (p.R1989*), <i>TP53</i> (p.R213*), <i>ERBB4</i> (p.F1102V), <i>FLT3</i>	No	No	No	No	MSS	64.1

18	Female	Ovary	High-grade serous carcinoma	T-70%	2.3	12,668,714	956	938	98.2	454	52.1	24.53	256	(p.E778D), <i>NF1</i> (p.R2450*), <i>ARID1B</i> (p.R2128*), <i>SPOP</i> (p.D140Y), <i>RB1</i> (p.E137*), <i>RB1</i> (p.E54*), <i>RB1</i> (p.E237*), <i>MAP2K4</i> (p.R134W), <i>RAD50</i> (p.E257*), <i>RAD50</i> (p.D69N), <i>PIK3R1</i> (p.R348*), <i>SDHC</i> splice site mutation <i>TP53</i> (p.G266R), <i>MED12</i> (p.R1709*)	No	No	No	No	MSS	4.7	
19	Female	Ovary	Carcinoma	T-90%	6.1	6,425,970	485	481	99.2	283	65.9	11.17	220.8	<i>CDK12</i> (p.L123Tfs*4), <i>TP53</i> (p.S215I)	No	<i>CCNE1</i> amplification (9)	No	No	MSS	4.7	
20	Female	Ovary	High-grade serous carcinoma	T-50%	5.9	9,538,644	720	715	99.5	430	67.2	13.35	324.3	<i>BRCA1</i> (p.Y1429Ffs*5), <i>TP53</i> (p.Y220C)	No	No	No	Yes	MSS	3.1	
21	Female	Ovary	High-grade serous carcinoma	T-70%	6.8	11,033,236	833	829	99.6	491	66.7	15.56	358.1	<i>BRCA1</i> (p.E1694*), <i>TP53</i> (p.Q317*)	No	No	No	Yes	MSS	3.1	
22	Female	Ovary	High-grade serous carcinoma	T-50%	7.0	10,485,562	791	787	99.5	456	65.5	14.77	336.4	<i>BRCA2</i> p.S1248Rfs*10), <i>TP53</i> (p.V216L)	No	No	No	Yes	MSS	1.6	
23	Female	Endometrium	Endometrial adenocarcinoma	T-60%	6.7	10,710,884	808	804	99.5	467	65.6	14.5	346.9	<i>FGFR2</i> (p.S252W), <i>FGFR2</i> (p.C382R), <i>CTNNB1</i> (p.D32N), <i>KRAS</i> (p.G12V)	No	No	No	No	MSS	3.1	
24	Male	Thyroid	Anaplastic thyroid carcinoma	T-70%	6.3	7,798,114	588	583	99.1	305	58.7	8.34	243.9	<i>TP53</i> (p.C238Y)	<i>NCOA4-RET</i>	No	No	No	Yes	MSS	4.7

25	Female	Ovary	High-grade serous carcinoma	T-80%	6.2	13,102,916	989	983	99.5	609	69	19.67	420.1	<i>BRCA1</i> (p.A678Rfs*22), <i>TP53</i> (p.R174Ffs*67)	fusion No	No	No	Yes	MSS	7.8
26	Female	Ovary	High-grade serous carcinoma	T-80%	6.4	8,902,456	672	666	99.2	381	63.7	17.04	269.2	<i>TP53</i> (p.F270L)	No	<i>PPP2RIA</i> amplification (9)	No	No	MSS	9.4
27	Male	MUO	Poorly differentiated carcinoma, metastatic	T-70%	7.6	13,020,854	983	977	99.5	582	66.8	19.71	399.6	No	No	No	No	MSS	3.1	
28	Female	Ovary	High-grade serous carcinoma	T-60%	6.2	10,359,172	782	778	99.6	481	68.9	17.21	343.3	<i>TP53</i> (p. Y220C)	No	No	No	No	MSS	1.6
29	Male	Lung	Non-small cell carcinoma, carcinosarcoma	T-60%	2.4	15,559,520	1175	1163	99	673	63.9	31.14	365.1	<i>MET</i> exon14 skipping, <i>KRAS</i> (p.Q61L,p.G12C)	No	<i>KRAS</i> amplification (18)	No	Yes	MSS	4.7
30	Female	Ovary	High-grade serous carcinoma	T-70%	3.6	10,519,330	794	789	99.5	514	72.5	30.32	297.7	<i>TP53</i> (p.G245V)	No	No	No	No	MSS	3.1
31	Female	Ovary	High-grade serous carcinoma	T-20%	2.7	12,348,384	932	921	98.9	605	71.3	47.28	240.4	No	No	No	No	MSS	1.6	
32	Female	Ovary	High-grade serous carcinoma	T-90%	2.9	13,747,702	1038	1029	99.2	581	62.6	30.53	321.2	<i>JAK2</i> (p.R528M), <i>TP53</i> (p.R335Vfs*10)	No	<i>KRAS</i> amplification (5)	No	No	MSS	4.7
33	Female	Ovary	High-grade serous carcinoma	T-40%	5.0	8,767,122	661	655	99.1	359	61.6	12.8	272	<i>TP53</i> (p.R213Dfs*34)	No	No	No	No	MSS	1.6

34	Female	Breast	Invasive ductal carcinoma	T-40%	5.9	8,825,328	666	661	99.4	389	65.9	9.83	306.7	<i>NF1</i> (p.W571Lfs*4), <i>TP53</i> (p.L130Pfs*19)	No	<i>NOTCH 2</i> (22), <i>CCDN2</i> (13) <i>TAS2R31</i> , <i>TAS2R19</i> , <i>ETV6</i> , <i>CDKN1B</i> (7)	<i>CDKN2A</i> , <i>CDKN2B</i> , <i>MTAP</i> deletion (0)	No	MSS	6.3
35	Female	Ovary	High-grade serous carcinoma	T-85%	6.8	10,826,292	817	812	99.4	464	64.4	11.21	360.2	<i>TP53</i> (p.P278Lfs*67)	No	amplification <i>FGFR1</i> (amplification) (5)	No	No	MSS	6.3
36	Female	Ovary	clear cell carcinoma	T-50%	6.1	10,021,224	756	750	99.3	392	59	8.83	314.2	<i>KRAS</i> (p.G12D), <i>TP53</i> (p.H214R), <i>CREBBP</i> (p.T1735Nfs*7)	No	No	No	No	MSS	4.7
37	Female	Ovary	High-grade serous carcinoma	T-70%	6.4	11,420,798	862	855	99.3	452	59.3	10.9	349.5	<i>NOTCH4</i> (p.S1216Lfs*19), <i>TP53</i> (p.M237I)	No	<i>CCND1</i> , <i>FGF19</i> , <i>FGF4</i> (5), <i>IGF1R</i> , <i>NTRK3</i> , <i>FANCI</i> , and <i>IDH2</i> (6) (amplification)	No	No	MSS	4.7
38	Female	Endometrium	Endometrioid adenocarcinoma	T-70%	5.7	12,075,292	911	906	99.5	543	67	16.88	389.2	<i>ARID1A</i> (Q567*), <i>ASXL1</i> (A671V), <i>ATM</i> K2811Sfs*46), <i>BRCA1</i> R1699W, <i>DDX3X</i> G598Wfs*9, <i>ERBB3</i> V104M, <i>KRAS</i> G13D, <i>MAP2K1</i> D67N, <i>MSH6</i> N897Kfs*3, <i>MSH6</i> A1320Kfs*6, <i>PIK3CA</i> R108H, <i>PIK3CA</i> V344M, <i>PTEN</i> R233*, <i>PTEN</i> D268Gfs*30	No	No	No	Yes	MSI-H	46.9
39	Female	Endometrium	Endometrioid adenocarcinoma	T-60%	6.2	8,766,688	661	658	99.5	386	66.1	12.22	295.6	<i>ARID1A</i> R1722*, <i>ATR</i> F1134Lfs*6, <i>CCND1</i> T286A, <i>EGFR</i> N771_H773dup, <i>EPHA3</i>	No	No	No	Yes	MSI-H	48.4

40	Female	MUO	Malignant epithelioid-like neoplasm, metastatic	T-90%	8.4	9,914,064	748	742	99.2	389	58.9	8.77	309.8	G20Rfs*10, FBXW7 R224*, MAP2K4 E171*, MRE11A N511Kfs*3, NBN R466Gfs*18, PTEN R130G, RNF43 G659Vfs*41, KMT2A P773Rfs*8	No	No	MTAP (deletion: 0)	No	MSS	3.1
41	Female	HN	Squamous cell carcinoma, Meta	T-80%	5.5	11,449,318	864	859	99.4	471	62.1	9.34	374.9	PIK3CA (p.H1047R), HRAS (p.G12C), ERCC4 (p.L494Ffs*5), NF1 (splice site mutation)	No	No	No	No	MSS	12.5
42	male	Lung	Squamous cell carcinoma, Meta	T-90%	8.3	9,760,408	737	733	99.5	409	63.3	8.97	327.4	TP53 (p.Q317*)	No	FGFR1 (amplification) (5)	No	No	MSS	12.5
43	Female	Ovary	Mixed high-grade serous carcinoma	T-60%	6.5	10,141,320	765	760	99.3	437	64.5	12.44	333	BRCA1 (p.E1694*), RB1 (splice site), TP53 Q167Hfs*3	No	MYC, PABPC1, RSP02 (amplification) (5)	No	Yes	MSS	6.3
44	Female	Ovary	Seromucinous carcinoma	T-50%	3.7	11,623,648	877	868	99	483	61.5	17.2	336.8	PIK3CA (p.H1047R), TP53 (p.P151T), FBXW7 (p.R505P)	No	AKT (Amplification) (23)	No	No	MSS	4.7
45	Male	Lung	malignant neoplasm	T-90%		12,580,742	950	939	98.9	483	57.9	17.42	335.5	TP53 (p.E286K)	No	No	No	No	MSS	1.6
46	Female	Endometrium	Mesonephric-like adenocarcinoma	T-90%	3.9	11,554,900	872	867	99.4	512	66.1	13.93	383	KRAS (p.G12V)	No	No	No	No	MSS	3.1
47	Female	Endometrium	Endometrioid	T-80%	5.9	10,309,370	778	772	99.3	444	64.7	15.28	325.7	ARIDIA P1326Rfs*155,	No	No	No	Yes	MSI-H	50

			adenocarcinoma											ATM F627Sfs*22, CDK12 Q872*, CREBBP Q2122*, JAK1 K860Nfs*16, KRAS G12D, MITF M471Wfs*9, PIK3R1 (splice site), PIK3R2 (G373R), PTEN W274Gfs*2, PTEN V290*, RNF43 G659Vfs*41, SMARCA4 G163Afs*10, SMARCA4 P244Rfs*59, P36Afs*7							
48	Female	Ovary	Endometrioid adenocarcinoma	T-70%	4.9	15,574,808	1176	1165	99.1	667	63.7	21.09	443.8	BRCA1 (p.W1815*):tier1, TP53 (p.T256Hfs*89), TSC2 (p.E1523Vfs*5)	No	No	No	Yes	MSS	7.8	
49	Female	Ovary	High-grade serous carcinoma	T-80%	6.5	12,587,760	950	944	99.4	537	64.3	16.32	390	TP53 (splice site mutation)	No	PIK3CA, ETV5, SOX2, ABCC5, FXR1 (amplification) (6)	No	No	MSS	1.6	
50	male	MUO	Adenocarcinoma	T-30%	3	11,894,888	898	893	99.5	548	68.7	22.68	362.3	KRAS (p.G12D), GNAS (p.R201H), SMAD4 (p.R361H), CDKN2A (p.P114D)	No	No	No	No	MSS	4.7	
51	Female	Ovary	High-grade serous carcinoma	T-70%	4.9	9,620,430	726	722	99.5	443	68.7	19.55	307	TP53 (p.Q317*)	No	SMARCA4, ZNF563 amplification (8)	SMAD4, FANCA, CFBF, CDH1, ADAMTS18, NUDT7 deletion (0)	No	MSS	3.1	
52	Female	Endometrium	Carcinosarcoma	T-10%	6.1	14,569,736	1100	1090	99.1	617	63.1	21.91	406.4	PTEN (p.S287*), PTEN (p.K237*), TP53 (p.Q167*), CDKN2A (p.R99Gfs*43)	No	No	No	No	MSS	3.1	

53	Female	Ovary	Clear cell carcinoma	T-80%	6.3	12,376,098	934	929	99.5	542	65.7	16.89	390.6	<i>ARID1B</i> (p.S1454Wfs*36)	No	No	No	No	MSS	3.1
54	Female	Lung	Adenocarcinoma	T-5%	3.3	10,899,274	823	815	99	490	66.3	26.32	299.6	<i>EGFR</i> exon 19 deletion, TP53 H214R	No	<i>EGFR</i> amplification (237)	<i>CDKN2A</i> , <i>CDKN2B</i> , <i>MTAP</i> deletion (0)	Yes	MSS	7.8
55	Female	Ovary	Clear cell carcinoma	T-50%	3.7	4,741,992	358	354	99.1	214	66.4	25.16	133	<i>ARID1A</i> splice site mutation, <i>PIK3R1</i> splice site mutation	No	No	No	No	MSS	1.6
56	Female	Endometrium	Endometrioid adenocarcinoma	T-60%	7.3	8,087,300	610	606	99.3	346	64.1	11.1	268.4	<i>CTNNB1</i> (p.S37A), <i>NFE2L2</i> (p.R34G), <i>PTEN</i> (p.R159M)	No	No	No	No	MSS	3.1
57	Female	Stomach	Adenocarcinoma	T-30%	2.8	12,339,044	931	925	99.3	558	67.5	20.35	378.8	<i>RNF43</i> (p.A78Sfs*18), <i>SOX9</i> (p.P103Afs*149), <i>APC</i> (p.W1049*)	No	No	No	No	MSS	4.7
58	male	Lung	Adenocarcinoma	T-60%	6.2	11,157,252	842	838	99.5	480	64.5	13.08	363.2	<i>STK11</i> (p.K689*), <i>SMARCA4</i> (p.E33*), <i>TP53</i> (p.R158P)	No	<i>CDK6</i> , <i>MET</i> , <i>CASD1</i> amplification (7)	No	No	MSS	21.9
59	male	Lung	Non-small cell carcinoma	T-60%	6.4	12,923,552	976	969	99.4	537	62.5	9.05	428.4	<i>NFI</i> , <i>TP53</i> (splicing), <i>EZH2</i> (p.E478*)	No	<i>TERT</i> , <i>SDHA</i> amplification (6)	<i>MAP2K4</i> , <i>SLC23A2</i> , <i>SSTR4</i> , <i>CDKN2A</i> , <i>CDKN2B</i> , <i>MTAP</i> deletion (0)	No	MSS	10.1
60	Female	Ovary	High-grade serous carcinoma	T-70%	4.9	12,566,710	949	943	99.5	550	65.2	15.67	400.4	<i>BRCA2</i> (p.D2242Ffs*2), <i>ARID1A</i> Q557*, <i>PARP1</i> K15*	No	No	No	Yes	MSS	7.8
61	Female	Lung	Melanoma, Metastatic	T-85%	5.2	8,277,648	625	621	99.4	350	63.7	13.75	262.2	No	No	<i>BRAF</i> (amplification) (18)	No	No	MSS	6.3
62	Female	Endometrium	Endometrioid adenocarcinoma	T-80%	5.7	9,898,816	747	740	99.2	439	66.1	13.66	328.6	<i>ARID1A</i> P224Rfs*8, <i>ARID1A</i> M651Hfs*25, <i>ARID1A</i> P1898Hfs*25, <i>ARID1B</i> L1850*, <i>ATR</i> F1134Lfs*6, <i>ATRX</i>	No	No	No	Yes	MSI-H	29.7



63	male	Lung	Carcinoma, Metastatic (NSCC)	T-70%	6.1	9,933,364	750	744	99.3	421	63.4	10.8	328.2	R1093Sfs*25, CBFB R19*, CCND1 E274_D289del, MAP3K1 G608Afs*48, PIK3CA E545G, PTEN R130G TP53 (p.E68*), RB1 (splicing)	No	FANCG (amplification) (14)	No	No	MSS	12.5
64	Female	Ovary	High-grade serous carcinoma	T-70%	6.2	11,644,484	879	874	99.4	488	62.8	12.01	374	BRCA1 (p.C1828Lfs*6), MRE11A (A147Gfs*6), TP53 (C229Yfs*8)	No	ERRF1, MTOR, PIK3CD amplification (5)	LRP1B, AXIN1, CREBBP, SLX4, TSPD1, TSC2, FANCA deletion (0)	Yes	MSS	7.8
65	Male	HN	Olfactory neuroblastoma	T-20%	3	9,342,638	705	700	99.3	448	70.6	33.46	241.7	ARID1A (p.E2250Rfs*28)	No	No	No	No	MSS	1.6
66	Male	MUO	Poorly differentiated carcinoma (urothelial)	T-80%	5.7	10,943,082	826	819	99.2	501	68	15.28	367.1	PIK3CA (p.E545K), TP53 (p.S183*)	No	WDR87 amplification (6)	No	No	MSS	1.6
67	Female	Ovary	Endometrioid carcinoma, grade 3	T-80%	5.8	12,206,776	921	913	99.2	506	62.5	14.5	374.4	TP53 (p.N210Fs*36)	No	PPP2R1A (10), JAK2, CD274, XRCC2, NOS3, EZH2, BRAF, TAS2R31, TAS2R19, ETV6, CDKN1B, KRAS, CCND2 amplification (5),	PTEN, STAMBPL1 deletion (0)	No	MSS	6.3
68	Female	Ovary	Clear cell carcinoma	T-25%	7.2	10,785,544	814	807	99.3	455	63.4	11.85	349.6	PIK3CA (p.M1004V), ARID1A (p.F1720Sfs*5), ARID1A (p.N1208Kfs*12)	No	No	No	No	MSS	1.6
69	Female	Uterine cervix	Invasive adenocarcinoma	T-50%	6.9	11,364,188	858	852	99.4	491	64.7	13.51	369.8	ARID1A Q585*, ARID1A G2087R, CDKN2A	No	No	No	No	MSS	10.9

70	Female	Ovary	High-grade serous carcinoma	T-50%	6.7	10,596,482	800	794	99.4	451	63.8	13.46	339.8	R246Gfs*16, KRAS G12D, NFE2L2 W24C, SMAD4 D351N, TP53 P278L, TP53 S127P TP53 (p.R175G)	No	No	No	No	MSS	3.1
71	Female	Endometrium	Endometrioid carcinoma, grade 3	T-60%	6.3	9,376,258	708	703	99.4	414	65.8	12.06	317.9	PTEN (p.I33del), ARID1A (p.P1889Rfs*11), PIK3R1 (p.Y452_N453ins KY)	No	No	No	No	MSS	3.1
72	Female	Ovary	High-grade serous carcinoma	T-70%	6.4	12122308	915	909	99.4	526	65.1	14.2	391.4	TP53 (splicing)	No	SOX2, PIK3CA, FXR1, ABCC5 (7), STAU2, RSPO2, PREX2, PABPC1, NBN, MYC, IMPA1, EPPK1 amplification (5)	FANCA deletion (0)	No	MSS	3.1
73	Female	Ovary	Clear cell carcinoma	T-60%	6.5	11,793,902	890	885	99.5	511	65	13.84	382.6	KRAS (p.G12C), ARID1A (p.Y222Sfs*10)	No	EPPK1, IMPA1, MYC, NBN, PABPC1, PCMTD1, PREX2, RSPO2, STAU2 amplification (9)	No	No	MSS	1.6
74	Female	Ovary	High-grade serous carcinoma	T-60%	2.9	6,121,030	462	457	99.1	282	68	31.04	160.6	TP53 (p.K132N)	No	JAK1 amplification (5)	No	No	MSS	6.3
75	Female	Ovary	High-grade serous carcinoma	T-40%	5.2	12,241,822	924	918	99.4	538	65.7	16.51	388.3	BRCA2 (p.R2494*), PIK3CA E542K, SMO D473N, TP53 Q165*	No	ABCC5, FXR1, PIK3CA, SOX2 amplification (8)	No	Yes	MSS	9.4
76	Female	Ovary	High-grade serous carcinoma	T-60%	2.5	10,990,968	829	822	99.2	513	68.6	36.54	260.2	BRCA1 (p.E699Rfs*13), TP53 V147Lfs*23	No	MYC, RSPO2 (13), EPPK1 (8), PABPC1 amplification	DLC1, IRS1 deletion (0)	Yes	MSS	3.1

77	Male	Lung	ad Squamous cell carcinoma	T-70%	7.2	13,200,502	996	988	99.2	543	62	12	416.1	<i>TP53</i> (p.R249S), <i>PTCH1</i> (p.E374*)	No	(7) No	No	No	MSS	7.8
78	Female	Endometrium	ad Carcinoma	T-60%	6.4	11,164,340	843	836	99.3	505	66.9	18.43	352.4	<i>PTEN</i> (splicing), <i>TP53</i> (splicing)	No	No	No	No	MSS	3.1
79	Female	Ovary	ad High-grade serous carcinoma	T-75%	4.1	8,253,032	623	617	99.2	366	65.6	15.7	265.6	<i>TP53</i> (p.R248Q)	No	<i>ABCC5, ADNP, AURKA, CDH26, ETV5, FBXW7, FXR1, GNAS, NNAT, PIK3CA, SOX2, SRC, TOP1</i> amplification	No	No	MSS	4.7
80	male	Lung	Non-small cell carcinoma	T-90%	5	12,657,414	955	948	99.2	542	63.8	13.33	408.4	<i>TP53</i> (p.R196*), <i>PTEN</i> (p.Q245*), <i>ARID1A</i> (p.Q309*)	No	(6) <i>EPPK1, IMPA1, MYC, NBN, PABPC1, PCMTD1, PREX2, RSPO2, STAU2</i> amplification	<i>NF1</i> (deletion: 0)	No	MSS	3.1
81	Female	Endometrium	ad Adenocarcinoma	T-10%	5.4	8,682,892	655	651	99.4	399	68	17.47	283.5	<i>STK11</i> (p.D53Gfs*110), <i>SMAD4</i> (p.R361H)	No	No	No	No	MSS	3.1
82	Male	MUO	ad Carcinoma, Meta	T-80%	6.3	10,824,436	817	812	99.4	453	63	10.04	357.2	<i>APC</i> F1491Lfs*16, <i>CDKN2A</i> R22Pfs*20, <i>ERBB4</i> E542K, <i>NFE2L2</i> L30F, <i>SMO</i> K575M, <i>TP53</i> S241F	No	No	No	Yes	MSS	23.4
83	Female	Endometrium	ad Dedifferentiated carcinoma	T-80%	3.7	11,862,958	895	890	99.5	541	67.5	19.43	375.2	<i>ERBB3</i> P262S, <i>PIK3R1</i> S660Afs*4, <i>TP53</i> I195T	No	No	No	No	MSS	15.6
84	Female	Endometrium	ad Endometrioid carcinoma, FIGO grade 2	T-60%	6.6	13,283,712	1003	997	99.4	579	65.2	15.02	428.9	<i>KRAS</i> (p.G12C), <i>PTEN</i> (p.R130G), <i>MYC</i> (p.A59V)	No	No	No	No	MSS	3.1
85	Female	Breast	ad Ductal carcinoma, metastatic	T-60%	6.6	5,752,026	434	430	99.2	281	71.7	21.15	189.5	<i>PIK3CA</i> (p.H1047L)	No	<i>CCND1, FGF19, FGF4</i> (21), <i>FGFR1</i> (11), <i>CCDC73</i> ,	No	Yes	MSS	10.9

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86	Female	MUO	Carcinoma, meta	T-50%	4.7	10,670,050	805	800	99.4	515	71.5	17.11	368.6	<i>ARID1A</i> (p.M890Nfs*42)	No	No	<i>WT1, A1BG, AURKC, BAX, PPP2R1A, TEAD2</i> amplification (6)	<i>CDKN2A, CDKN2B, MTAP, MAP2K4, DPYD, LRP1B, ALK</i> (deletion: 0)	No	MSS	6.25
87	Female	Ovary	High-grade serous carcinoma (HGSC)	T-30%	8.2	8,822,794	666	662	99.4	372	63.7	8.77	298.5	<i>TP53</i> (p.C229Yfs*10), <i>NFI</i> (p.Y2102Wfs*25)	No	No		No	No	MSS	3.1
88	Female	Breast	Carcinoma	T-30%	6.7	9,506,884	718	713	99.33	425	66.7	10.9	330.6	No	No	<i>FANCF</i> (14), <i>BRIPI</i> (12), <i>CCND1, FGF19, FGF4</i> amplification (11)	No	No	MSS	3.1	
89	Female	Endometrium	Endometrioid adenocarcinoma	T-60%	6.8	9,918,016	748	743	99.3	434	65.4	10.87	337.9	<i>ARID1A</i> P224Rfs*8, <i>ARID1A</i> G276Efs*83, <i>MLH1</i> splicing, <i>NFI</i> Y580Lfs*8, <i>PARP1</i> L641Wfs*12, <i>PIK3CA</i> H1047L, <i>PTEN</i> K267Rfs*9, <i>PTEN</i> N323Kfs*2, <i>SETD2</i> R2077*	No	No		No	Yes	MSI-H	28.1
90	Female	Bone	Osteosarcoma		6.5	11,261,806	850	844	99.3	471	62.9	8.51	379.1	No	No	<i>FLCN</i> (14), <i>CDKN2C, FUBP1, JAK1</i> (8), <i>AURKB, MAP2K4</i> (7), <i>IMPA1, MYC, NBN, PABPC1, RSPO2, STAU2</i> amplification (6)	<i>RBI</i> (deletion: 0)	No	MSS	4.6	

91	Male	Lung	Non-small cell carcinoma	T-70%	7.7	10,135,758	765	760	99.35	436	64.67	12.17	334.32	<i>TP53</i> (p.T155P)	No	No	<i>RBI</i> (deletion: 0)	No	MSS	4.6	
92	Male	Lung	Adenocarcinoma	T-40%		12,948,024	977	971	99.5	552	64.2	10.64	432.7	<i>ERBB2</i> (p.D769H):tier1, <i>TP53</i> (p.R175H), <i>NBN</i> (p.S509Ifs*2)	No	No	No	Yes	MSS	6.3	
93	Female	Endometrium	Mixed carcinoma	T-50%	6.2	10,032,984	757	752	99.3	436	65	11.05	338.8	<i>TP53</i> (p.S149Cfs*32)	No	<i>AKT1</i> amplification (6)	No	No	MSS	4.7	
94	Female	Lung	Squamous cell carcinoma	T-90%	5.6	10,511,186	794	789	99.43	462.82	65.88	11.57	357.55	<i>TP53</i> (p.K120*)	No	<i>SOX2, FXR1</i> (22), <i>PIK3CA</i> (12), <i>WDR87, CEBPA, CCNE1, AKT2</i> amplification (8)	No	No	MSS	6.3	
95	Female	Ovary	High-grade serous carcinoma	T-30%	2.4	10,186,438	769	761	99	478	68.6	20.3	323.9	<i>ATM</i> (p.R2993*), <i>TP53</i> (p.R175H)	No	No	No	No	MSS	6.3	
96	Male	Skin	Melanoma	T-20%	3.1	10,472,728	790	784	99.3	475	67.7	14.33	353.1	<i>NRAS</i> (p.Q61R)	No	<i>ARID2</i> amplification (47)	No	No	MSS	4.7	
97	Female	Ovary	High-grade serous carcinoma	T-50%	2.9	12,603,964	951	943	99.2	571	66.8	20.83	383.7	<i>BRCA1</i> (p.F1124Sfs*5), <i>TP53</i> R333Vfs*12	No	<i>MYC, PABPC1, EPPK1, RSPO2</i> amplification (10)	No	Yes	MSS	3.1	
98	Female	Lung	Adenocarcinoma	T-30%	8.5	7,559,962	570	567	99.4	315	62.9	12.03	241.8	<i>MSH6</i> Y1159*, <i>TP53</i> D281G	<i>KIF5B-RET</i> fusion	No	No	No	Yes	MSS	4.7
99	Female	MUO	Carcinoma, Meta	T-60%	5.6	7,838,980	591	588	99.4	357	67.8	17.43	253.8	<i>ARID2</i> R482Ffs*8, <i>NFE2L2</i> R34G, <i>PALB2</i> W898*, <i>PIK3CA</i> E542K, <i>SETD2</i> I1243Tfs*32, <i>SMAD4</i> D351H, <i>TET2</i> D1343N, <i>TP53</i> R249S	No	No	No	Yes	MSS	20.3	
100	Female	Ovary	High-grade	T-70%	6.5	8,238,064	622	616	99.2	349	63.5	12.01	267.5	<i>ERBB4</i> (p.E542K), <i>NF</i>	No	No	No	No	MSS	6.3	

101	male	Lung	serous carcinoma Non-small cell carcinoma (adenocarcinoma)	T-60%	8.9	11,087,610	837	830	99.3	482	65.1	11.71	371.2	(splicing), <i>TP53</i> (p.K164E)	No	<i>TPR-ROS1</i> fusion	No	No	Yes	MSS	1.5
102	Female	Breast	Invasive ductal carcinoma	T-60%	6	11,011,378	831	825	99.3	468	63.7	12.49	357.5	<i>TP53</i> (splicing)	No	<i>EPPK1, MYC, CDKN1B, ETV6, KRAS, TAS2R19, TAS2R31</i> amplification (6)	No	No	No	MSS	12.5
103	Female	Lung	Adenocarcinoma	T-60%		10,876,014	821	815	99.3	476	65.5	11.26	368.7	<i>KRAS</i> (p.G12V), <i>SMARCA4</i> (p.S1409*), <i>STK11</i> (p.D194Y)	No	No	No	No	MSS	6.3	
104	male	Lung	Non-small cell carcinoma (Adenocarcinoma)	T-5%		10,865,736	820	814	99.4	457	63.3	10.55	358.2	<i>KRAS</i> (p.G12V), <i>STK11</i> (p.E121*), <i>ATM</i> (splicing)	No	No	No	No	MSS	10.9	
105	Female	Breast	Invasive ductal carcinoma	T-50%	5.1	12592854	950	944	99.4	602	70.9	19.22	417.6	<i>PIK3CA</i> (p.E545K), <i>NOTCH1</i> G919Vfs*23, <i>TP53</i> R342*	No	<i>EPPK1, MYC, PABPC1, RSPO2</i> (7), <i>WDR87</i> amplification (6)	No	Yes	MSS	3.1	
106	Female	Breast	Carcinoma, metastatic	T-80%	5.4	8,943,806	675	671	99.4	396	66.1	12.29	302.7	<i>PIK3CA</i> (p.E545K), <i>EZH2</i> A692V, <i>FGFR4</i> V550M	No	<i>NNAT, SRC</i> amplification (6)	No	Yes	MSS	10.9	
107	Male	Lung	Adenocarcinoma, metastatic	T-60%	7.0	8,671,184	654	648	99.02	366	63.17	8.96	292.72	<i>TP53</i> (p.S241F)	No	<i>RSPO2, PABPC1</i> (8), <i>NKX2-1, NFKBIA</i> amplification (7)	No	No	MSS	4.4	
108	Female	Lung	Squamous cell carcinoma, metastatic	T-50%	7.0	10,120,256	764	758	99.26	435	64.53	9.24	347.05	<i>FBXW7</i> R479Q, <i>MAPK1</i> E322K, <i>PIK3CA</i> E542K	No	No	No	No	MSS	20.3	
109	Female	Breast	Breast	T-	7.7	10,018,342	756	750	99.19	425	63.7	9.85	335.78	<i>TP53</i> (p.W53*)	No	<i>CCNE1</i> ,	No	No	No	MSS	4.7

			cancer, metastatic	40%											<i>FOXL2, PIK3CB</i> (31), <i>AKT2, CEBPA, WDR87</i> (12), <i>CD274, JAK2</i> (9), <i>PCMTD1</i> amplification (8)						
110	Male	Lung	Adenocarcinoma	T-10%	4.5	11,321,348	854	843	98.76	443	59.15	12.18	338.25	<i>EGFR</i> (p.N771dup), <i>NFKBIA</i> Q165*, <i>TP53</i> Y163N	No	No	No	Yes	MSS	1.6	
111	Female	Ovary	High-grade serous carcinoma	T-70%	7.7	10,782,220	813	805	98.98	459	63.96	11.09	357.21	<i>BRCA2</i> (p.K467*), <i>CHEK2</i> K373E, <i>TP53</i> A138V	No	No	No	Yes	MSS	14.1	
112	Female	Breast	Invasive carcinoma	T-80%	7.7	8,835,678	667	661	99.22	375	63.86	8.37	302.06	<i>TP53</i> (p.M237I), <i>RBI</i> (p.Q770*)	No	No	No	No	MSS	1.6	
113	Female	Lung	Adenocarcinoma, metastatic	T-70%	7.1	13,075,512	987	972	98.61	542	62.18	9.62	429.34	No	<i>EGFR-RAD51</i> fusion	No	<i>RICTOR</i> (deletion: 0)	Yes	MSS	1.6	
114	Female	Lung	Adenocarcinoma	T-5%	7.9	7,606,472	574	567	98.85	314	62.31	8.48	252.23	<i>EGFR</i> (p.D770_N771insG)	No	No	No	Yes	MSS	3.1	
115	Male	Lung	Adenocarcinoma	T-30%	7.7	9,632,504	727	722	99.29	422	65.5	10.05	332.31	<i>TP53</i> (splicing), <i>NF1</i> (p.L2455*), <i>NF1</i> (splicing)	No	No	No	No	MSS	20.3	
116	Female	Skin	Malignant Melanoma	T-70%	6.2	10,475,200	791	785	99.3	457	65.3	10.18	359.3	<i>TP53</i> R306*	No	<i>CCND1</i> amplification (22)	No	No	No	MSS	3.1
117	Male	Thyroid	Thyroid carcinoma	T-30%	6.6	11,868,314	896	891	99.5	499	63.4	14.6	371.3	No	<i>CCDC6-RET</i> gene fusion	No	No	Yes	MSS	3.1	