

Table S1 Mutation type and abundance in tissue or plasma for EGFR-positive patients

Pt No.	Treatment	Tissue ARMS	Plasma cSMART	Abundance	Comutated genes
1	TKI	19Del	19Del	1.66%	
2	TKI	L858R	L858R	1.32%	
3	TKI	19Del	19Del	1.01%	
4	TKI	L861Q	L861Q	2.62%	KRAS, PIK3CA
5	TKI	negative	G719A	0.03%	TP53
6	TKI	19Del	19Del	0.19%	TP53, ALK, PIK3CA
7	TKI	L861Q	L861Q	0.07%	TP53
8	TKI	19Del	19Del	34.52%	TP53
9	TKI	S768I	G719C	34.88%	TP53
			S768I	31.45%	
10	TKI	negative	L861Q	0.03%	TP53
11	TKI	L858R	L858R	0.97%	TP53
12	TKI	L858R	L858R	3.33%	
13	TKI	19Del	19Del	0.02%	
14	TKI	19Del	19Del	5.74%	TP53
15	TKI	19Del	19Del	0.09%	
16	TKI	G719X	G719A	4.14%	TP53
17	TKI	L858R	L858R	10.48%	TP53
18	TKI	19Del	19Del	4.43%	
19	TKI	L858R	L858R	0.10%	
20	TKI	negative	G719C	0.59%	TP53
21	TKI	19Del	19Del	0.03%	
22	TKI	negative	G719C	0.04%	ERBB2, TP53
23	TKI	negative	G719C	0.02%	TP53
24	TKI	L858R	L858R	1.23%	
25	TKI	undetected	19Del	4.45%	TP53, ALK, KRAS
26	TKI	19Del	19Del	2.00%	TP53
27	TKI	negative	G719S	0.03%	KRAS, PIK3CA, ALK
28	TKI	S768I	S768I	1.94%	TP53
		G719X	G719A	1.86%	
29	TKI	19Del	19Del	1.08%	
30	TKI	L858R	L858R	0.88%	
31	TKI	19Del	19Del	0.61%	
32	TKI	negative	G719A	0.04%	TP53
33	TKI	L858R	L858R	3.44%	
34	TKI	19Del	19Del	0.59%	
35	TKI	L858R	L858R	0.80%	
36	TKI	19Del	19Del	0.22%	TP53
			E20ins	0.06%	
37	TKI	L858R	L858R	0.14%	TP53
38	TKI	negative	G719A	3.47%	
39	TKI	L858R	L858R	3.12%	KRAS
40	TKI	19Del	19Del	1.57%	
41	TKI	negative	19Del	0.88%	TP53, KRAS
42	TKI	L858R	L858R	47.76%	
43	TKI	S768I	G719C	0.05%	
44	TKI	L858R+S768I	L858R	1.19%	TP53
			S768I	1.08%	
45	TKI	S768I	S768I	3.49%	
			G719D	3.02%	
46	TKI	negative	L858R	3.03%	TP53
47	TKI	19Del	19Del	1.19%	PIK3CA
48	TKI	L858R	L858R	13.68%	TP53
49	TKI	19Del	G719A	0.05%	KRAS, MET
50	TKI	L858R	L858R	15.95%	
51	TKI	L858R	L858R	0.07%	ALK
52	TKI	L858R	L858R	3.17%	TP53
53	TKI	19Del	19Del	0.19%	
54	TKI	G719A+S768I	G719A	22.34%	TP53, PIK3CA
			S768I	19.99%	
55	TKI	19Del	negative		
56	TKI	19Del	19Del	0.05%	TP53, ALK, BRAF
			T790M	0.04%	
57	TKI	L858R	L858R	0.12%	TP53
			T790M	0.07%	
58	TKI	L858R	T790M	0.06%	PIK3CA
59	TKI	19Del+T790M	19Del	57.02%	
			T790M	15.00%	
60	nonTKI	negative	T790M	0.02%	TP53, ALK
61	TKI	L858R	negative		TP53
62	TKI	L858R	negative		
63	nonTKI	19Del	negative		
64	nonTKI	19Del	19Del	0.17%	TP53
65	nonTKI	negative	G719A	0.03%	
66	nonTKI	L858R	L858R	8.67%	TP53
			G719C	0.03%	
67	nonTKI	negative	E20ins	0.05%	TP53, KRAS
68	nonTKI	19Del	19Del	0.16%	ALK
69	nonTKI	negative	E20ins	0.40%	TP53, ALK
70	nonTKI	negative	T790M	0.02%	TP53, PIK3CA
71	nonTKI	negative	E20ins	0.06%	TP53
72	nonTKI	E20ins	negative		
73	nonTKI	L858R	negative		KRAS

Table S2 Characteristics and response of patients with acquired T790M mutation

Pt No.	Gender	Age	ECOG PS	Response	PFS	Sensitizing mutation		T790M	Period (days)
						Type	Abundance (%)		
1	M	65	1	SD	16	19Del	0.78	0.29	260
2	F	71	2	PR	7	19Del	0.51	0.16	45
3	F	55	1	PR	8	19Del	0.53	0.26	244
4	F	68	0	PR	10	L858R	0.09	0.12	274
5	F	57	1	SD	12	L858R	27.12	10.2	276
6	M	68	1	SD	8	L858R	17.17	5.97	381
7	F	61	1	PR	17	19Del	0.17	0.39	416
8	F	75	2	SD	13	L858R	1.66	0.86	176
9	M	55	1	SD	8	L858R	0.97	0.15	233
10	M	54	4	SD	3.5	G719A	32.92	0.01	69
						S768I	30.65		
11	F	52	0	PR	13	19Del	1.05	0.69	391

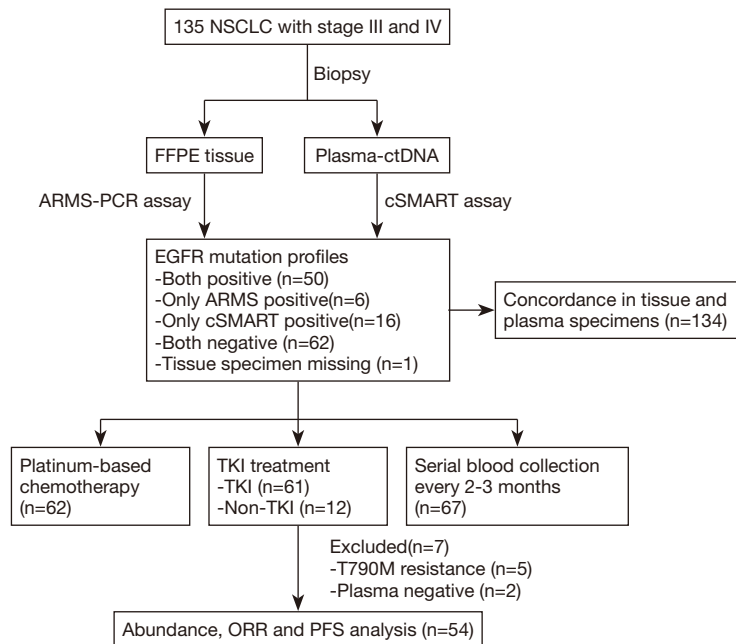


Figure S1 Patient enrollment and study overview.