

Supplementary Table S1: targets genes in the UltraSEEK lung panel

Gene	UltraSEEK™ Lung Panel Coverage (Missense mutations) Agena Bioscience	# of mutations
BRAF	Codon 469 (exon11) and codons 594, 600 (exon15)	4
EGFR	E709A, E709G, E709K, E709V, G719A, G719D, G719S, G719C, S768I, T790M, L858R, L861Q; L861R; C797S; Exon19 indels, Exon20 insertions	46
KRAS	Codons 12, 13 (exon 2) and 61 (exon 3)	16
ERBB2	Exon 20 insertions	4
PIK3CA	Codons 542, 545 (exon9), codon 1047 of (exon20)	4
TOTAL	5 genes	74

Supplementary Table S2: detected mutations and the VAF in plasma cfDNA from NSCLC patients

Pat	Amino Acid change	% VAF
P01	EGFR_p.E746_A750Del	0.4
P02	EGFR_p.E746_A750Del	0.9
P03	EGFR_p.E746_A750Del	5
P04	EGFR_p.E746_A750Del	5
	T790M	0.2
P05	EGFR_p.L858R	0.4
P06	EGFR_p.L858R	1
P07	EGFR_p.L858R	0.2
	KRAS_p.G12A/p.G12V	1.3
P08	EGFR_p.E709A	0.4
P09	EGFR_p.E746_A750Del	1.8
P09B	EGFR_p.E746_A750Del	0.8
	T790M	0.4
P10	L.747_T751del	2.3
P11	EGFR_p.L861Q/P.L861R	1.2
	EGFR_p.L747_A750>P	1.1
P12	EGFR_p.N771>TH	0.1
	KRAS_p.G12A/p.G12V	0.3
P13	EGFR_p.L858R	0.6
	PIK3CA_p.H1047R	0.6
P14	KRAS_p.G12C	0.3
P15	KRAS_p.G12A/p.G12V	0.2
P16	KRAS_p.G12A/p.G12V	0.3
P17	KRAS_p.G12A/p.G12V	0.3
P18	KRAS_p.G12R	1
P19	KRAS_p.G12C	0.3
P20	KRAS_p.G12C	0.5
	ERBB2_p.A775_G776insYVMA	0.5
P21	KRAS_p.G12F	0.5
	ERBB2_p.A775_G776insYVMA	0.9
P22	KRAS_p.G13D	0.7
P23	KRAS_p.G12C	0.3
	PIK3CA_p.H1047R	0.8
P24B	BRAF_p.G469A/p.G469V	0.2
P25	BRAF_p.G469A/p.G469V	0.7
P26	BRAF_p.D594G	0.2

P27	PIK3CA_p.E545K	1.2
P28	ERBB2_p.G776>VC	0.3