

S1 Table. Summary of positive controls for evaluating the analytical performance of the ULV1 panel

ULV1	Gene	Hotspot	Nucleotide change	Positive sample	Tested range	Replicate
Pool 1	<i>EGFR</i>	E709K	c.2125G>A	E709K/G719A Plasmid	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	E709K	c.2125G>A	E709K/G719D Plasmid	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	G719A	c.2156G>C	E709K/G719A Plasmid	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	G719D	c.2156G>A	E709K/G719D Plasmid	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	E746_A750del elinsK	c.2235_2249del 15	PC9 gDNA	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	E746_A750del elinsK	c.2235_2249del 15	Seraseq ctDNA reference	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	L747_P753> S	c.2240_2257del 18	Seraseq ctDNA reference	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	C797S	c.2389T>A	C797S Plasmid	5%-0.025% (7 ranges)	5
	<i>KRAS</i>	G13D	c.38G>A	HCT15 gDNA	5%-0.025% (7 ranges)	5
	<i>KRAS</i>	G13V	c.38G>T	G13V Plasmid	5%-0.025% (7 ranges)	5
Pool 2	<i>EGFR</i>	E746_A750del el	c.2236_2250del 15	HCC827 gDNA	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	T790M	c.2369C>T	H1975 gDNA	5%-0.025% (7 ranges)	5
	<i>EGFR</i>	L858R	c.2573T>G	H1975 gDNA	5%-0.025% (7 ranges)	5
	<i>BRAF</i>	V600E	c.1799T>A	HT29 gDNA	5%-0.025% (7 ranges)	5
	<i>KRAS</i>	G12D	c.35G>A	AsPC1 gDNA	5%-0.025% (7 ranges)	5
	<i>KRAS</i>	G12V	c.35G>T	SW900 gDNA	5%-0.025% (7 ranges)	5

ctDNA, circulating tumor DNA; EGFR, epidermal growth factor receptor; ULV1, ultra-high-sensitivity lung version 1.