

Supplemental Table 1. CfDNA ddPCR assay information

Locus	Gene	Gene location	Assay ID	Amplicon size (bp)	Annealing temp (°C)
Chr15:44714185	<i>B2M</i>	Intron 1	Hs03911571_cn	73	60
Chr1:35917705	<i>EIF2C1</i>	Exon 17-Intron 17	Hs02702900_cn	70	60
Chr14:20811565	<i>RNaseP</i>	Exon 1	N/A	87	60
Chr.5:1253373	<i>TERT</i>	Exon 16	N/A	88	60

Abbreviations: cfDNA, cell-free DNA; ddPCR, droplet digital PCR; temp, temperature; N/A, not applicable

Supplemental Table 2. Results from the outlier analyses

	Cochran's C test (analytical outliers)	Cochran's C test (within-subject)	Reed's criterion (between- subject)
Healthy subjects			
<i>B2M</i>	ID2-7; ID4-7; ID7-2	ID12; ID14	None
<i>EIF2C1</i>	ID3-4; ID12-2; ID29-4	ID12	None
<i>RNaseP</i>	ID3-3; ID12-1; ID14-2; ID20-7	ID12	None
<i>TERT</i>	ID29-4	ID12	None
Lung cancer patients			
<i>EIF2C1</i>	None	ID2	N/A
<i>TERT</i>	None	ID2	N/A

Abbreviations: N/A, Not applicable

Supplemental Table 3. Sensitivity analysis: components of biological variation in all lung cancer patients (including ID-2)

	<i>EIF2C1</i>	<i>TERT</i>
Number of samples ^a	50	50
Median (copies/ml)	3164·19	3525·40
Range (copies/ml)	863·19-56,810·07	950·84-64,512·68
CV _i (%)	46·2	45·4
CV _G (%)	138·5	140·6
CV _A (%)	5·8	7·4
II ^b	0·34	0·33
RCV ^c (%)	-70·7-241·5	-70·3-236·8
n ^d	16	15

^a Number of samples analyzed; ^b II, Index of individuality; ^c RCV, outer limits for reference change values at 95 % significance; ^d n, number of samples required to estimate the homeostatic set point. Abbreviations: CV_i, within-subject coefficient of variation; CV_G, between-subject coefficient of variation; CV_A, analytical coefficient of variation.

Supplemental figure legends

Supplemental figure 1: ddPCR assay validation

Panel a: Intra-run variation for 30 replicates of a cfDNA sample run on the same plate. The CVs for the assays were 2-4%.

Panel b: Evaluation of linearity of a dilution series of cfDNA. The solid lines represent linear regressions, and the linear equations and R^2 are shown. Input cfDNA was measured by Qubit. The experiment was conducted in triplicates

Panel c and d: Representative 2D scatter plots of the *EIF2C1/TERT* assay and the *B2M/RNaseP* assay.

Supplemental figures

Supplemental figure 1

