

Figure S1 Concentration of cfDNA in plasma samples. cfDNA, cell-free DNA.

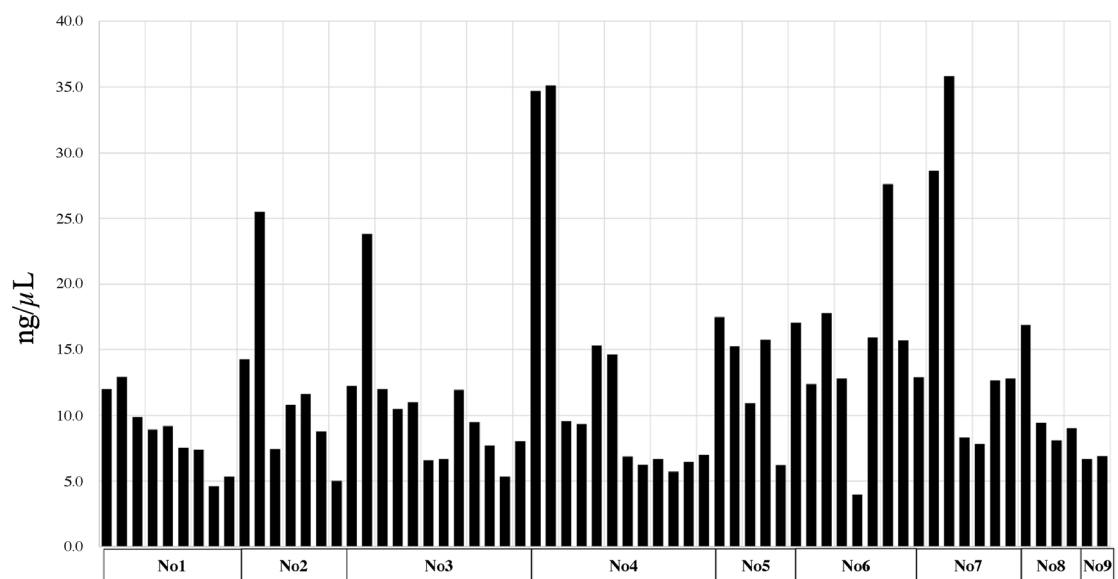
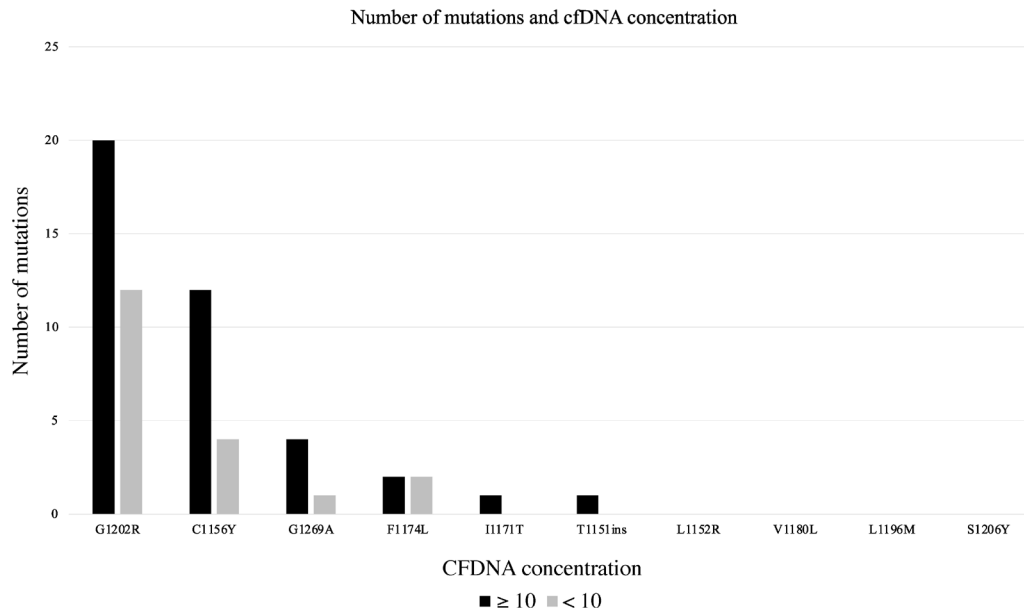
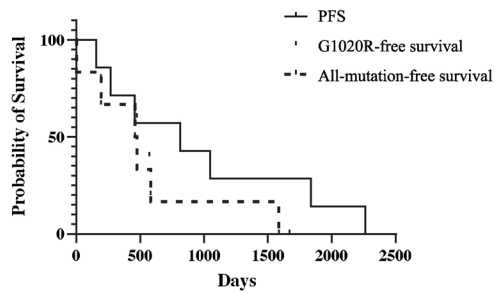


Figure S2 Concentration of cfDNA in plasma samples by patient. cfDNA, cell-free DNA.



**Figure S3** Number of mutations and cfDNA concentration. cfDNA, cell-free DNA.



**Figure S4** PFS and resistant mutation-free survival. PFS, progression-free survival.

**Table S1** Details of the probes used for droplet digital polymerase chain reaction

Probes	Vendor	No.	Lot No.	ALK mutations
LBx <sup>®</sup> Probe ALK Multi1	Riken Genesis Co., Ltd. Japan	A089	A10005	T1151ins, C1156Y, L1196M, G1269A
LBx <sup>®</sup> Probe ALK Multi2	Riken Genesis Co., Ltd. Japan	A090	A10003	L1152R, F1174L, V1180L
LBx <sup>®</sup> Probe ALK Multi3	Riken Genesis Co., Ltd. Japan	A091	A10003	I1171T, G1202R, S1206Y

ALK, anaplastic lymphoma kinase.

**Table S2** Composition of the reaction mixture for the ddPCR

Component	Volume
2×ddPCR Supermix for Probe (No dUTP)	11 $\mu$ L
Probes	2.2 $\mu$ L
cfDNA diluent	8.8 $\mu$ L
Total	22 $\mu$ L

ddPCR, droplet digital polymerase chain reaction; dUTP, deoxyuridine triphosphate; cfDNA, cell-free DNA.

**Table S3** Cycling conditions for droplet digital polymerase chain reaction

Cycling step	Temperature ( $^{\circ}$ C)	Time	Ramp rate	Cycle
Enzyme activation	95	10 min	2 $^{\circ}$ C/s	1
Denaturation	94	30 s		40
Annealing/extension	58	1 min		
Enzyme deactivation	98	10 min		1
Hold	4	Infinite		1