

Data S1. Genotyping results of *BRAF* genes obtained using the beads emulsion and magnetics digital PCR technique (circulating tumour DNA) after Hamburg re-analyses with routine results from the Institut National du Cancer (French National Cancer Institute) platform as a gold standard [formalin-fixed paraffin-embedded (FFPE)]. Among the 5 samples with *BRAF*

gene mutation based on FFPE tissue analysis, the *BRAF* status was confirmed for 2 patients, negative for 1 patient and not available for 2 patients in the analysis of blood samples. *BRAF* blood status was also not available for 2 patients with *BRAF* wild-type based on FFPE tissue analyses.

Table SI. Genotyping results of the *KRAS* and *NRAS* genes obtained using the beads emulsion and magnetics digital PCR technique (ctDNA) from ICL analyses before Hamburg re-analyses with routine results from the INCa platform (FFPE).

FFPE (INCa platform)	ctDNA (ICL analyses)		Total, n
	RAS +, n	RAS -, n	
RAS +	86	46 ^a	132
RAS -	4 ^b	66	70
Total	90	112	202

^aFalse negative results. ^bFalse positive results. Sensitivity, 86/132 (65.1%). Specificity, 66/70 (94.3%). ctDNA, circulating tumour DNA; FFPE, formalin-fixed paraffin-embedded; ICL, Institut de Cancérologie de Lorraine; INCa, Institut National du Cancer (French National Cancer Institute).

Table SII. Comparison of KRAS and NRAS genotyping results obtained from plasma-derived ctDNA using beads emulsion and magnetic digital PCR after Hamburg re-analyses, with routine FFPE results from the French National Cancer Institute platform considered as the reference standard.

FFPE	ctDNA		Total, n
	RAS +, n	RAS -, n	
RAS +	102	30	132
RAS -	4	66	70
Total	106	96	202

Sensitivity, 102/132 (77.3%). Specificity, 66/70 (94.3%). Among the 46 wild-type samples based on ICL analyses (false negative), 16 were classified as *RAS*-mutated according to Hamburg re-analyses. The 4 samples that were *RAS* wild-type samples based on FFPE tissue analyses and mutated based on ICL analyses (false positive) were classified as *RAS*-mutated according to Hamburg re-analyses. ctDNA, circulating tumour DNA; FFPE, formalin-fixed paraffin-embedded; ICL, Institut de Cancérologie de Lorraine.

Table SIII. Genotyping results of *KRAS*, *NRAS* and *BRAF* genes obtained using the beads emulsion and magnetics digital PCR technique (ctDNA) after Hamburg re-analyses with routine results from the Institut National du Cancer (French National Cancer Institute) platform as a gold standard (FFPE).

FFPE	ctDNA			Total, n
	RAS +, n	RAS -, n	Missing, n	
RAS +	104	31	2	137
RAS -	4	59	2	65
Total	108	90	4	202

Sensitivity, 104/135 (77.0%). Specificity, 59/63 (93.6%). ctDNA, circulating tumour DNA; FFPE, formalin-fixed paraffin-embedded.