

S1 Table. Primer sequences and TaqMan IDs used in this study

Experiment	Gene	Primer Sequence (5'-3') ^a	Annealing (°C)
TaqMan Assay	<i>GAPDH</i>	Hs02758991_g1	60
	<i>Gapdh</i>	Rn01775763_g1	60
Fragmentation PCR	<i>Tp53</i> 301 bp	CCTCAATAAGCTGTTCTGCC AGTCTGCCTGTCGTCCAGAT	60
	<i>Tp53</i> 952 bp	CCTCAATAAGCTGTTCTGCC GCCTCCACCTTCTTTGTCCT	60
Sanger Sequencing	<i>CHEK2</i>	CCCAGGAGTGGTAGGTCTCA GCCTCTCTTGCTGAACCAAT	60/65 ^c
	<i>FGFR3</i>	ACTGTCTGGGTCAAGGATGG AGCTGTAGGCCCCGGAGT	60
	<i>MAG1</i>	CAGCCACATCAACAGGAAGA CTCAGATTTACCCCATGCT	60
SYBR Green Allele-specific qPCR	<i>ERCC2</i>	GCTCATGCTTCCGTCTG(C/G) ^b TTACCTTTGGCGTAGGTGCT	65
	<i>CARD11</i>	CCAAATCTCTTTGGCCTG(T/A) GAGGGGACCTTTCAGCAGTT	65
	<i>EPHA3</i>	GGTTGGGCCACAGAAGAAG CCACCACTTCCGTCCAG(A/G)	65
	<i>MTOR</i>	TCTATCCAGGCCACTCTCTGA(C/T) ATGCGGATCTCCTTGTGCT	66
	<i>FLT4</i>	CAAGTGTTCCACCCAAAGAAA CTCCTGCACAGCTACCC(C/A)	65
	<i>FANCD2</i>	TAAAACAAGGAAAGCAAAGTGG(A/G) TATGTCAATCCCCAGAAGCA	65
	<i>BCYRN1 / TAF1</i>	AGAAATGGGTGAGTGGAGGA CCTCAAACAAAAAAGTGAGACT(C/A)	65
	<i>Kras_ref</i>	TCCACAAAGTGATTCTGAATT CGTAGGATCATATTCATCCACAAA	62

SYBR Green Allele-specific qPCR	<i>Kras</i> (c.34)	ACTTGTGGTAGTTGGAGCT(G/A) TCCACAAAGTGATTCTGAATT	62
	<i>Kras</i> (c.35)	CTTGTGGTAGTTGGAGCTG(G/A) CCACCAAGTGATTCTGAATTA	62
	<i>Kras</i> (c.38)	GTGGTAGTTGGAGCTGGTG(G/A) TCCACAAAGTGATTCTGAATT	65
TaqMan Mutation Detection Assay	<i>KRAS_ref</i>	Hs00000174_rf	
	<i>KRAS</i> (c.34)	Hs00000115_mu	58 (5),
	<i>KRAS</i> (c.35)	Hs00000121_mu	60 (45) ^d
	<i>KRAS</i> (c.38)	Hs00000131_mu	

^a Upper, forward primer; lower, reverse primer.

^b The first nucleotide in parentheses is the wild-type allele, and the second is the mutant allele.

^c PCR was performed using 2 annealing temperatures appropriate for each sample: 60°C for fresh-frozen tissue DNA and 65°C for FFPE DNA due to better PCR condition for Sanger Sequencing.

^d MDA was performed using 2 annealing temperatures: 58°C for an initial 5 cycles and 60°C for the ensuing 45 cycles.