

Supplementary table 1 RT-QMPSF primer sequences and RT-MLPA probe sequences used for the blood p53 functional assay

Gene	RT-QMPSF		RT-MLPA	
	Primer sequences <sup>a,b</sup>	Length (bp)	Probe sequences <sup>a,c,d</sup>	Length (bp)
<i>CEP170B</i>	F 5'-6FAM-TCAACGCCGAGAACGAGG-3' R 5'-GGTCCACGATGGCATTGAT-3'	170	F 5'- <u>GTGCCAGCAAGATCCAATCTAGAGGGTGCAGAAACAGCTGGAAG</u> -3' R 5'-5Phos- <u>TTATCAATGCCATCGTGGACCCCACTCCAACCCTTAGGGAACCC</u> -3'	88
<i>PODXL</i>	F 5'-6FAM-CATCATTCTGCTCCTCGTG-3' R 5'-AAGAGGTCTCCATCACTTCCAG-3'	150	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACTCTCCAGAGGAAGGACCAG</u> -3' R 5'-5Phos- <u>CAGCGCTAACAGAGGAGCTCCAACCCTTAGGGAACCC</u> -3'	82
<i>RRAD</i>	F 5'-6FAM-ATCTTCGGCGGTGTGGAG-3' R 5'-GCTGCCCTTGTCCGTCCTACT-3'	198	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCGCCTGAAGCAGAGGCAGCAG</u> -3' R 5'-5Phos- <u>GGCACACCTATGATCGCTCCATTGCATCTCCAACCCTTAGGGAACCC</u> -3'	94
<i>GLS2</i>	F 5'-6FAM-AGGACAGGTGGGGCAACATT-3' R 5'-GCTTTTCTTGAGCAGGGGC-3'	190	F 5'- <u>GTGCCAGCAAGATCCAATCTAGAGCAAAGTGAATCCTTTGCCAAGGACAG</u> -3' R 5'-5Phos- <u>GTGGGGCAACATCCCTGGCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	103
<i>CABYR</i>	F 5'-6FAM-TTCAGGAAGCACAGGGATGG-3' R 5'-TGGGAAAAGCAACAGAAAGGA-3'	212	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACACAAACGTCGAAAAGCAGAAAAGTGA</u> -3' R 5'-5Phos- <u>ATCCAGAAATGACGCTGTCTGGGCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	109
<i>TP53I3</i>	F 5'-6FAM-ATGGTCTGATGGGAGGAGGT-3' R 5'-TGGATTTCGGTCACTGGGTA-3'	220	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCATCCGCCTTCCAGCTGTTACATCTT</u> GGG-3' R 5'-5Phos- <u>GAAATGTTCAGGCTGGAGACTATGTGCTAATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	118
<i>EPS8L2</i>	F 5'-6FAM-CCAGCACCTGGCCAC-3' R 5'-GCTCCTCGTGTGACTCGAT-3'	173	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCCCTCGCAGTACCACGTCCAG</u> -3' R 5'-5Phos- <u>CACCTGGCCACATTCATCATGGACATCATCTCCAACCCTTAGGGAACCC</u> -3'	100
<i>SULF2</i>	F 5'-6FAM-CTCCAAGGATTACCTCACAGAC-3' R 5'-GGCGTGATGTGCTGAGA-3'	183	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCAGTGGACGACTCCATGGAGACG</u> -3' R 5'-5Phos- <u>ATTTACAACATGCTGGTTGAGACGGGCATCATCTCCAACCCTTAGGGAACCC</u> -3'	105
<i>SESNI</i>	F 5'-6FAM-CTTCTCTCAGATGATGAAGAAGTTAC-3' R 5'-AATAGTCTGGACACGAAATGTT-3'	131	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCAGATGCCGGTCAACTCAGCAGAAAATGTTTCT</u> -3' R 5'-5Phos- <u>GTAAGTGATTCTTTCTTTGAGGTTGAAGCCCTCATGCATCATCTCCAACCCTTAGGGAACCC</u> -3'	124
<i>FHL2</i>	F 5'-6FAM-AAGCCATCACCACGG-3' R 5'-ACTTCTTGGCATACAAGTCACAG-3'	163	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCATCCAGGAATGCAAGAAGACCATCATGCCAG</u> -3' R 5'-5Phos- <u>GTACCCGCAAGATGGAGTACAAGGGCATCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	127
<i>TBP</i>	F 5'-GCACCACTCCACTGTATCCCT-3' R 5'-6FAM-TTAGGTCAAGTTACAACCAAGATT-3'	142	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCCCCGAAACGCCGAATATAATCCCAAG</u> -3' R 5'-5Phos- <u>CGGTTTGTGCGGTAATCATGAGGATAAGCATCATCTCCAACCCTTAGGGAACCC</u> -3'	112
<i>RIC8B</i>	F 5'-6FAM-AAGGTGCATAAAGAGAGTGATTCT-3' R 5'-GACTGCATTGCTGTGTAGCTC-3'	121	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATGACGGTAGACAGTTGGAAGGTGCATAAAGAG</u> -3' R 5'-5Phos- <u>AGTGATTCTCATCAGTTCCGTGTAATGGCAGCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	120
<i>MPP5</i>	F 5'-6FAM-AATGATGATTATGACAACGAGGA-3' R 5'-TACTCCGGGTTGTATGAGGA-3'	190	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCGCTTTGCATCTGCAGTTCCTC</u> -3' R 5'-5Phos- <u>ATACAACCCGGAGTAGGCGAGACATCATCCAACCCTTAGGGAACCC</u> -3'	97
<i>PLK1</i>	F 5'-6FAM-AGTCTCAATAAAGGCTTGGA-3' R 5'-AGCCTCCTCTTGCTGAC-3'	178	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCATCATCATCATCATCATCATCATCATCAT</u> CACTGCGGCTGGTCAGGCAAG-3' R 5'-5Phos- <u>AGGAGGCTGAGGATCCTGCCATCATCATCATCATCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	130
<i>TP53 ex5-6</i>	F 5'-6FAM-CTGGCCAAGACCTGCC-3' R 5'-GAAAAGTGTTTCTGTCTATCCAAATAC-3'	229	F 5'- <u>GTGCCAGCAAGATCCAATCTAGAGAGCGCTGCTCAGATAGCGATG</u> -3' R 5'-5Phos- <u>GTCTGGCCCTCCTCAGCATCTCCAACCCTTAGGGAACCC</u> -3'	85
<i>TP53 ex7-9<sup>e</sup></i>	F 5'-6FAM-TGGAAGACTCCAGTGGTAATCTAC-3' R 5'-GCAGTGCTCGCTTAGTGC-3'	156	F 5'- <u>GTGCCAGCAAGATCCAATCTAGACATCATCTCACCATCATCACACTGGAAGACTCCAG</u> -3' R 5'-5Phos- <u>TGGTAATCTACTGGGACGGAACAGCTTTCATCATCATCTCCAACCCTTAGGGAACCC</u> -3'	115

<sup>a</sup> F and R indicate forward and reverse primers, respectively.

<sup>b</sup> Fluorescent 6-FAM-labeled primers are indicated.

<sup>c</sup> Probes with a 5'phosphate are indicated (5Phos).

<sup>d</sup> The 5' and 3' tails in bold correspond to primers U1 (TCCAACCCTTAGGGAACCC) and U2 (GTGCCAGCAAGATCCAATCTAGA) used for the final PCR amplification step. Spacers (underscored) were added between these tails and the gene-specific regions to allow the separation and identification of the PCR products based on size.

<sup>e</sup> For RT-MLPA, probes are targeting exons 7 and 8.