

Table S1. List of gene targets for detection of relevant SNVs, CNV, gene fusions and indels from 161.

Hotspot genes <i>n</i> =87	Full length genes <i>n</i> =48	Copy number genes <i>n</i> =47:	Gene fusions <i>n</i> =51:
AKT1 AKT2 AKT3 ALK AR ARAF AXL BRAF BTK CBL CCND1 CDK4 CDK6 CHEK2 CSF1R CTNNB1 DDR2 EGFR ERBB2 ERBB3 ERBB4 ERCC2 ESR1 EZH2 FGFR1 FGFR2 FGFR3 FGFR4 FLT3 FOXL2 GATA2 GNA11 GNAQ GNAS H3F3A HIST1H3B HNF1A HRAS IDH1 IDH2 JAK1 JAK2 JAK3 KDR KIT KNSTRN KRAS MAGOH MAP2K1 MAP2K2 MAP2K4 MAPK1 MAX MDM4 MED12 MET MTOR MYC MYCN MYD88 NFE2L2 NRAS NTRK1 NTRK2 NTRK3 PDGFRA PDGFRB PIK3CA PIK3CB PPP2R1A PTPN11 RAC1 RAF1 RET RHEB RHOA ROS1 SF3B1 SMAD4 SMO SPOP SRC STAT3 TERT TOP1 U2AF1 XPO1	ARID1A ATM ATR ATRX BAP1 BRCA1 BRCA2 CDK12 CDKN1B CDKN2A CDKN2B CHEK1 CREBBP FANCA FANCD2 FANCI FBXW7 MLH1 MRE11A MSH2 MSH6 NBN NF1 NF2 NOTCH1 NOTCH2 NOTCH3 PALB2 PIK3R1 PMS2 POLE PTCH1 PTEN RAD50 RAD51 RAD51B RAD51C RAD51D RB1 RNF43 SETD2 SLX4 SMARCA4 SMARCB1 STK11 TP53 TSC1 TSC2	AKT1 AKT2 AKT3 ALK AR AXL BRAF CCND1 CCND2 CCND3 CCNE1 CDK2 CDK4 CDK6 CDKN2A CDKN2B EGFR ERBB2 ESR1 FGF19 FGF3 FGFR1 FGFR2 FGFR3 FGFR4 FLT3 IGF1R KIT KRAS MDM2 MDM4 MET MYC MYCL MYCN NTRK1 NTRK2 NTRK3 PDGFRA PDGFRB PIK3CA PIK3CB PPARG RICTOR TERT TSC1 TSC2	AKT2 ALK AR AXL BRAF BRCA1 BRCA2 CDKN2A EGFR ERBB2 ERBB4 ERG ESR1 ETV1 ETV4 ETV5 FGFR1 FGFR2 FGFR3 FGR FLT3 JAK2 KRAS MDM4 MET MYB MYBL1 NF1 NOTCH1 NOTCH4 NRG1 NTRK1 NTRK2 NTRK3 NUTM1 PDGFRA PDGFRB PIK3CA PPARG PRKACA PRKACB PTEN RAD51B RAF1 RB1 RELA RET ROS1 RSPO2 RSPO3 TERT

SNV: single nucleotide variant, CNV: copy number variation, indel: insertion- deletion mutation