

Table SI. List of genes tested in the NIPD Genetics pan-cancer tumor profile assay.

Single Nucleotide Variants / Insertions and Deletions	Copy Number Alterations	Rearrangements
AKT1, ALK, APC, AR, ARAF, ATM, ATRX, BARD1, BRAF, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, CIC, CTNNB1, DDR2, DICER1, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FBXW7, FLT3, FOXA1, FOXL2, FUBP1, GATA3, GNA11, GNAQ, GNAS, H3F3A, IDH1, IDH2, JAK2, KEAP1, KIT, KRAS, MAP2K1, MAP3K1, MET, MLH1, MRE11A, MSH2, MSH6, MTOR, NBN, NF1, NPM1, NRAS, NTRK1, PALB2, PDGFRA, PIK3CA, PIK3CB, PMS2, POLE, PTEN, RAD51C, RAD51D, RAF1, RET, RUNX1, SMAD4, SPOP, STK11, TERT, TP53	1p/19q codeletion, AR, CDKN2A, EGFR, ERBB2, ESR1, FGFR1, FGFR2, FGFR3, KIT, KRAS, MET, MYC, MYCN, PIK3CA, PTEN, RB1, TP53	ALK, BRAF, FGFR3, NTRK1, NTRK2, NTRK3, RET, ROS1, TMPRSS2

Table SII. List of 33 structural variants identified by the comprehensive pan-cancer tumour profile assay.

Sample ID	Chr	Start	Stop	Gene	Structural Variant type
GB001	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB005	chr4	55524085	55606881	<i>KIT</i>	Copy number amplification
GB006	chr10	89622870	89731687	<i>PTEN</i>	Copy number deletion
GB026	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB038	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB055	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB057	chr4	1795039	1810599	<i>FGFR3</i>	Copy number amplification
GB057	chr4	1808674	1739592	<i>FGFR3-TACC3</i>	Rearrangement
GB060	chr8	128748330	128753674	<i>MYC</i>	Copy number amplification
GB060	chr10	89622870	89731687	<i>PTEN</i>	Copy number deletion
GB062	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB062	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB067	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB090	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB095	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB095	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB100	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB101	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB112	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB112	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB114	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB117	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB117	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB117	chr8	128748330	128753674	<i>MYC</i>	Copy number amplification
GB127	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB127	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB129	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB132	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB132	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB137	chr9	21967752	21975097	<i>CDKN2A</i>	Copy number deletion
GB137	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification
GB137	chr10	89622870	89731687	<i>PTEN</i>	Copy number deletion
GB141	chr7	55086794	55279321	<i>EGFR</i>	Copy number amplification