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## **Genlisten Paneldiagnostik**

### **SOP04: Multiplex PCR (Endpunkt-PCR Humangenomanalyse aus isolierten Nukleinsäuren) Ausgabedatum 01.08.2019**

KMT2A::FOXO4, t(X;11)(q13;q23)

STIL, SIL::TAL1

KMT2A::MLLT11, t(1;11)(p21;q23)

KMT2A::EPS15, t(1;11)(q32;q23)

TCF3::PBX1, t(1;19)(q23;p13)

NPM1::ALK, t(2;5)(p23;q35)

NPM1::MLF1, t(3;5)(q25;q34)

RUNX1::MECOM, t(3;21)(q26;q22)

RUNX1::RPL22P1, t(3;21)(q26;q22) (Neu ab 25.10.2022)

KMT2A::AFF1, t(4;11)(q21;q23)

ETV6::PDGFR, t(5;12)(q33;p13)

NPM1::RARA, t(5;17)(q35;q22)

DEK::NUP214, t(6;9)(p23;q34)

KMT2A::AFDN, t(6;11)(q27;q23)

RUNX1::RUNX1T1, t(8;21)(q22;q22)

SET::NUP214, t(9;9)(q34;q34)

KMT2A::MLLT3, t(9;11)(p22;q23)

ETV6::ABL1, t(9;12)(q34;p13)

BCR::ABL1, t(9;22)(q34;q11)

KMT2A::MLLT10, t(10;11)(p12;q23)

KMT2A PTD, dupMLL(11q23)

ZBTB16::RARA, t(11;17)(q23;q21)

KMT2A::MLLT6, t(11;17)(q23;q21)

KMT2A::ELL, t(11;19)(q23;p13.1)

KMT2A::MLLT1, t(11;19)(q23;p13.3)

ETV6::RUNX1, t(12;21)(p13;q22)

ETV6::MN1, t(12;22)(p13;q11-12) (Neu ab 25.10.2022)

PML::RARA, t(15;17)(q21;q22)

CBFB::MYH11, inv(16)(p13q22)

FUS::ERG, t(16;21)(p11;q22)

TCF3::HLF, t(17;19)(q22;p13)

Bei Anforderungen einzelner Analyten bitte Namen des gewünschten Fusion-Gens auf "Zuweisung zur hämato-onkologischen Diagnostik" bei "Split-out PCR" eintragen

## SOP18: Hämatookologie Panel

### NGS für myeloische und lymphatische Erkrankungen, Ausgabedatum 24.01.2023

#### Gene mit vollständiger Abdeckung der kodierenden Sequenz:

BCOR, CEBPA, CSF3R, CXCR4, DNMT3A, ETV6, EZH2, JAK2, NF1, RUNX1, STAG2, TET2, TP53, ZRSR2

#### Gene mit Erfassung von Hotspots:

ASXL1, BIRC3, BRAF, BTK, CALR, CBL, FLT3, HRAS, IDH1, IDH2, KIT, KRAS, MPL, MYD88, NOTCH1, NPM1, NRAS, PLCG2, PTPN11, SETBP1, SF3B1, SRSF2, U2AF1, WT1

## SOP17: AmpliSeq Panel

### NGS für Onkologie (solide Tumore, z.B. Colon, Lunge, GIST,...), Ausgabedatum 24.01.2023

#### Gene mit Erfassung von Hotspots:

ABL1, AKT1, ALK, APC, ATM, BRAF, CDH1, CDKN2A, CSF1R, CTNNB1, EGFR, ERBB2, ERBB4, EZH2, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, GNA11, GNAQ, GNAS, HNF1A, HRAS, IDH1, IDH2, JAK2, JAK3, KDR, KIT, KRAS, MET, MLH1, MPL, NOTCH1, NPM1, NRAS, PDGFRA, PIK3CA, PTEN, PTPN11, RB1, RET, SMAD4, SMARCB1, SMO, SRC, STK11, TP53, VHL

## SOP14: TruSight Oncology 500 Panel (TSO500)

### NGS für solide Tumore, z.B. Mutationssuche, Fusionen, CNVs, MSI, TMB, optional HRD, Ausgabedatum 05.05.2023

#### A) TSO500 Detektion von Varianten (Punktmutationen und Indels)

ABL1, ABL2, ACVR1, ACVR1B, AKT1, AKT2, AKT3, ALK, ALOX12B, ANKRD11, ANKRD26, APC, AR, ARAF, ARFRP1, ARID1A, ARID1B, ARID2, ARID5B, ASXL1, ASXL2, ATM, ATR, ATRX, AURKA, AURKB, AXIN1, AXIN2, AXL, B2M, BAP1, BARD1, BBC3, BCL10, BCL2, BCL2L1, BCL2L11, BCL2L2, BCL6, BCOR, BCORL1, BCR, BIRC3, BLM, BMPR1A, BRAF, BRCA1, BRCA2, BRD4, BRIP1, BTG1, BTK, C11orf30, CALR, CARD11, CASP8, CBFB, CBL, CCND1, CCND2, CCND3, CCNE1, CD274, CD276, CD74, CD79A, CD79B, CDC73, CDH1, CDK12, CDK4, CDK6, CDK8, CDKN1A, CDKN1B, CDKN2A, CDKN2B, CDKN2C, CEBPA, CENPA, CHD2, CHD4, CHEK1, CHEK2, CIC, CREBBP, CRKL, CRLF2, CSF1R, CSF3R, CSNK1A1, CTCF, CTLA4, CTNNA1, CTNNB1, CUL3, CUX1, CXCR4, CYLD, DAXX, DCUN1D1, DDR2, DDX41, DHX15, DICER1, DIS3, DNAJB1, DNMT1, DNMT3A, DNMT3B, DOT1L, E2F3, EED, EGFL7, EGFR, EIF1AX, EIF4A2, EIF4E, EML4, EP300, EPCAM, EPHA3, EPHA5, EPHA7, EPHB1, ERBB2, ERBB3, ERBB4, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, ERG, ERFF1, ESR1, ETS1, ETV1, ETV4, ETV5, ETV6, EWSR1, EZH2, FAM123B, FAM175A, FAM46C, FANCA, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FAS, FAT1, FBXW7, FGF1, FGF10, FGF14, FGF19, FGF2, FGF23, FGF3, FGF4, FGF5, FGF6, FGF7, FGF8, FGF9, FGFR1, FGFR2, FGFR3, FGFR4, FH, FLCN, FLI1, FLT1, FLT3, FLT4, FOXA1, FOXL2, FOXO1, FOXP1, FRS2, FUBP1, FYN, GABRA6, GATA1, GATA2, GATA3, GATA4, GATA6, GEN1, GID4, GLI1, GNA11, GNA13, GNAQ, GNAS, GPR124, GPS2, GREM1, GRIN2A, GRM3, GSK3B, H3F3A, H3F3B, H3F3C, HGF, HIST1H1C, HIST1H2BD, HIST1H3A, HIST1H3B, HIST1H3C, HIST1H3D, HIST1H3E, HIST1H3F, HIST1H3G, HIST1H3H, HIST1H3I, HIST1H3J, HIST2H3A, HIST2H3C, HIST2H3D, HIST3H3, HLA-A, HLA-B, HLA-C, HNF1A, HNRNP, HOXB13, HRAS, HSD3B1, HSP90AA1, ICOSLG, ID3, IDH1, IDH2, IFNGR1, IGF1, IGF1R, IGF2, IKBKE, IKZF1, IL10, IL7R, INHA, INHBA, INPP4A, INPP4B, INSR, IRF2, IRF4, IRS1, IRS2, JAK1, JAK2, JAK3, JUN, KAT6A, KDM5A, KDM5C, KDM6A, KDR, KEAP1, KEL, KIF5B, KIT, KLF4, KLHL6, KMT2B, KMT2C, KMT2D, KRAS, LAMP1, LATS1, LATS2, LMO1, LRP1B, LYN, LZTR1, MAGI2, MALT1, MAP2K1, MAP2K2, MAP2K4, MAP3K1, MAP3K13, MAP3K14, MAP3K4, MAPK1, MAPK3, MAX, MCL1, MDC1, MDM2, MDM4, MED12, MEF2B, MEN1, MET, MGA, MITF, MLH1, MLL, MLLT3, MPL, MRE11A, MSH2, MSH3, MSH6, MST1, MST1R, MTOR, MUTYH, MYB, MYC, MYCL1, MYCN, MYD88, MYOD1, NAB2, NBN, NCOA3, NCOR1, NEGR1, NF1, NF2, NFE2L2, NFKBIA, NKX2-1, NKX3-1, NOTCH1, NOTCH2, NOTCH3, NOTCH4, NPM1, NRAS, NRG1, NSD1, NTRK1, NTRK2, NTRK3, NUP93, NUTM1, PAK1, PAK3, PAK7, PALB2, PARK2, PARP1, PAX3, PAX5, PAX7, PAX8, PBRM1, PDCD1, PDCD1LG2, PDGFRA, PDGFRB, PDK1, PDPK1, PGR, PHF6, PHOX2B, PIK3C2B, PIK3C2G, PIK3C3, PIK3CA, PIK3CB, PIK3CD, PIK3CG, PIK3R1, PIK3R2, PIK3R3, PIM1, PLCG2, PLK2, PMAIP1, PMS1, PMS2, PNRC1, POLD1, POLE, PPARG, PPM1D, PPP2R1A, PPP2R2A, PPP6C, PRDM1, PREX2, PRKAR1A, PRKCI, PRKDC, PRSS8, PTCH1,

PTEN, PTPN11, PTPRD, PTPRS, PTPRT, QKI, RAB35, RAC1, RAD21, RAD50, RAD51, RAD51B, RAD51C, RAD51D, RAD52, RAD54L, RAF1, RANBP2, RARA, RASA1, RB1, RBM10, RECQL4, REL, RET, RFWD2, RHEB, RHOA, RICTOR, RIT1, RNF43, ROS1, RPS6KA4, RPS6KB1, RPS6KB2, RPTOR, RUNX1, RUNX1T1, RYBP, SDHA, SDHAF2, SDHB, SDHC, SDHD, SETBP1, SETD2, SF3B1, SH2B3, SH2D1A, SHQ1, SLIT2, SLX4, SMAD2, SMAD3, SMAD4, SMARCA4, SMARCB1, SMARCD1, SMC1A, SMC3, SMO, SNCAIP, SOCS1, SOX10, SOX17, SOX2, SOX9, SPEN, SPOP, SPTA1, SRC, SRSF2, STAG1, STAG2, STAT3, STAT4, STAT5A, STAT5B, STK11, STK40, SUFU, SUZ12, SYK, TAF1, TBX3, TCEB1, TCF3, TCF7L2, TERC, TERT, TET1, TET2, TFE3, TFRC, TGFBR1, TGFBR2, TMEM127, TMPRSS2, TNFAIP3, TNFRSF14, TOP1, TOP2A, TP53, TP63, TRAF2, TRAF7, TSC1, TSC2, TSHR, U2AF1, VEGFA, VHL, VTCN1, WISP3, WT1, XIAP, XPO1, XRCC2, YAP1, YES1, ZBTB2, ZBTB7A, ZFH3, ZNF217, ZNF703, ZRSR2

### **B) TSO500 Detektion von Fusionen**

ABL1, AKT3, ALK, AR, AXL, BCL2, BRAF, BRCA1, BRCA2, CDK4, CSF1R, EGFR, EML4, ERBB2, ERG, ESR1, ETS1, ETV1, ETV4, ETV5, EWSR1, FGFR1, FGFR2, FGFR3, FGFR4, FLI1, FLT1, FLT3, JAK2, KDR, KIF5B, KIT, KMT2A, MET, MLLT3, MSH2, MYC, NOTCH1, NOTCH2, NOTCH3, NRG1, NTRK1, NTRK2, NTRK3, PAX3, PAX7, PDGFRA, PDGFRB, PIK3CA, PPARG, RAF1, RET, ROS1, RPS6KB1, TMPRSS2

### **C) TSO 500 Detektion von Amplifikationen**

AKT2, ALK, AR, ATM, BRAF, BRCA1, BRCA2, CCND1, CCND3, CCNE1, CDK4, CDK6, CHEK1, CHEK2, EGFR, ERBB2, ERBB3, ERCC1, ERCC2, ESR1, FGF1, FGF10, FGF14, FGF19, FGF2, FGF23, FGF3, FGF4, FGF5, FGF6, FGF7, FGF8, FGF9, FGFR1, FGFR2, FGFR3, FGFR4, JAK2, KIT, KRAS, LAMP1, MDM2, MDM4, MET, MYC, MYCL1, MYCN, NRAS, NRG1, PDGFRA, PDGFRB, PIK3CA, PIK3CB, PTEN, RAF1, RET, RICTOR, RPS6KB1, TFRC

## **SOP16: TruSight Hereditary Cancer Panel**

### **NGS für erbliche Tumorprädispositionssyndrome, Ausgabedatum 24.01.2023**

ACD, AIP, AKT1, APC, ATM, BAP1, BARD1, BLM, BMPR1A, BRCA1, BRCA2, BRIP1, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN2A, CEBPA, CHEK2, CTCF, DDB2, DICER1, DIS3L2, EPCAM, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FH, FLCN, GALNT12, GATA2, GPC3, GREM1, HOXB13, KIF1B, KIT, LZTR1, MAX, MEN1, MET, MTF, MLH1, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NSD1, NTHL1, PALB2, PDGFRA, PHOX2B, PIK3CA, PMS2, POLD1, POLE, POT1, PRKAR1A, PTCH1, PTEN, RAD50, RAD51, RAD51C, RAD51D, RB1, RECQL4, RET, RHBDF2, RUNX1, SDHA, SDHAF2, SDHB, SDHC, SDHD, SLX4, SMAD4, SMARCA4, SMARCB1, SMARCE1, SPINK1, SPRED1, STK11, SUFU, TERF2IP, TERT, TMEM127, TP53, TSC1, TSC2, VHL, WT1, XPA, XPC, XRCC2

## **SOP12: Twist Exome Panel 2.0**

### **Virtuelle Genpanels aus Twist Exome Panel 2.0, Ausgabedatum 25.05.2023:**

Die virtuellen Genpanels enthalten Gene, die laut heutigem Wissensstand mit der jeweiligen Erkrankung assoziiert sind. Abhängig von den klinischen Angaben können im individuellen Fall auch weitere Gene untersucht werden. Die Liste der untersuchten Gene wird am Befund angehängt.

#### **A) Amyloidose**

APOA1, APOA2, APOC2, APOC3, B2M, CST3, FGA, GSN, LYZ, NLRP3, TTR

#### **B) Diabetes und MODY**

ABCC8, AGPAT2, AKT2, APPL1, BLK, BSCL2, CEL, CISD2, DCAF17, DNAJC3, DYRK1B, EIF2AK3, FOXP3, GATA4, GATA6, GCK, GLIS3, HNF1A, HNF1B, HNF4A, IER3IP1, IL2RA, INS, INSR, KCNJ11, KLF11, LIPC, LMNA, LRBA, MNX1, MT-TL1, NEUROD1, NEUROG3, NKX2-2, PAX4, PAX6, PCBD1, PDX1, PIK3R1, PLIN1, POLD1, PPARG,

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PPP1R15B, PTF1A, RFX6, SLC19A2, SLC29A3, SLC2A2, STAT1, STAT3, TRMT10A, WFS1, ZBTB20, ZFP57, ZMPSTE24

### **C) Erythrozytose (erbliche Formen)**

BPGM, EGLN1/2/3, EPAS1, EPO, EPOR, HBA1, HBA2, HBB, HIF1A, JAK2, PIEZO1, PKLR, SH2B3, SLC30A10, VHL

### **D) Glykosylierungserkrankungen (CDG)**

ALG1, ALG11, ALG12, ALG13, ALG14, ALG2, ALG3, ALG6, ALG8, ALG9, ATP6AP1, ATP6V0A2, B3GALNT2, B3GALT6, B3GAT3, B3GLCT, B4GALT1, B4GALT7, C1GALT1C1, CAD, CCDC115, CHST14, CHST3, CHST6, CHSY1, COG1, COG2, COG4, COG5, COG6, COG7, COG8, DDOST, DHDDS, DOLK, DPAGT1, DPM1, DPM2, DPM3, EXT1, EXT2, FKRP, FKTN, FUT8, GALNT12, GALNT3, GFPT1, GLS, GMPPB, GNE, GORAB, ISPD, LARGE1, LFNG, MAGT1, MAN1B1, MGAT2, MOGS, MPDU1, MPI, NGLY1, NUS1, PGAP2, PGAP3, PGM1, PGM3, PIGA, PIGL, PIGM, PIGN, PIGO, PIGS, PIGT, PIGV, PIGW, PMM2, POMGNT1, POMGNT2, POMT1, POMT2, RFT1, RXYLT1, SEC23B, SLC35A1, SLC35A2, SLC35A3, SLC35C1, SLC35D1, SLC39A8, SRD5A3, SSR4, ST3GAL3, ST3GAL5, STT3A, STT3B, TMEM165, TMEM199, TRAPPC11, TUSC3, XYLT1, XYLT2

### **E) Kardiologische Erkrankungen**

- **Hypertrophe Kardiomyopathie**

ACTC1, ACTN2, ALPK3, ATAD3A, CACNA1C, CSRP3, FHL1, FHOD3, FLNC, GLA, GYG1, JPH2, LAMP2, MT-TI, MYBPC3, MYH7, MYL2, MYL3, MYLK2, MYPN, PLN, PRKAG2, PTPN11, RAF1, RIT1, RPS6KB1, TNNC1, TNNI3, TNNT2, TPM1, TRIM63, TTR, TULP3

- **Brugada Syndrom**

SCN5A, KCNH2

- **Arrhythmogene rechtsventrikuläre Kardiomyopathie**

ANK2, CDH2, DES, DSC2, DSG2, DSP, FLNC, JUP, LMNA, PKP2, PLN, TMEM43

- **Dilatative Kardiomyopathie**

ABCC9, ACTC1, ACTN2, BAG3, CSRP3, DES, DMD, DSP, EPG5, EYA4, FKTN, FLNC, HAMP, HFE, HJV, IDH2, JPH2, LDB3, LMNA, MYBPC3, MYH6, MYH7, NEXN, PLN, PPP1R13L, PRDM16, RBM20, SCN5A, SGCD, SLC40A1, SPEG, TAFAZZIN, TCAP, TFR2, TNNC1, TNNI3, TNNT2, TPM1, TTN, VCL, WWTR1

- **Linksventrikuläre Non-Compaction Kardiomyopathie (LVNC)**

ACTC1, MYBPC3, MYH7, TNNT2, TPM1, WWTR1

- **Long QT Syndrom**

CACNA1C, CALM1, CALM2, CALM3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, SCN5A, TECRL, TRDN

- **Short QT Syndrom**

CACNA1C, KCNH2, KCNJ2, KCNQ1, CACNA2D1, CACNB2, SCN5A, SLC4A3

## F) Kongenitale Myopathie

ACTA1, ACTN2, ADSS1, AR, ASCC1, ASCC3, BIN1, CACNA1S, CCDC78, CFL2, CNTN1, COL12A1, COL13A1, COL25A1, COL6A1, COL6A2, COL6A3, COX6A2, DHX16, DMPK, DNAJB4, DNM2, DOK7, ECEL1, EPG5, FKBP14, FLNC, FXR1, GBE1, GFER, HACD1, HNRNPA2B1, KBTBD13, KLHL40, KLHL41, KY, LAMP2, LMNA, LMOD3, MAP3K20, MEGF10, MICU1, MLIP, MTM1, MTMR14, MYBPC1, MYBPC3, MYF5, MYH2, MYH3, MYH7, MYL1, MYL2, MYMK, MYO18B, MYOD1, MYPN, NEB, NEFL, ORAI1, PAX7, PIEZO2, PPA2, PYROXD1, RYR1, RYR3, SCN4A, SELENON, SLC25A4, SLC25A42, SPEG, SPTBN4, STAC3, STIM1, SVIL, TNNC2, TNNI2, TNNT1, TNNT3, TPM2, TPM3, TRDN, TRIP4, TTN, UNC45B, VMA21, ZC4H2

## G) Hereditäre Neuropathie

AARS1, ABCA1, ABHD12, AGTPBP1, AGXT, AIFM1, AP1S1, APOA1, APTX, ARHGEF10, ARSA, ATL1, ATL3, ATM, ATP1A1, ATP7A, B4GALNT1, BAG3, BCKDHB, BICD2, BSCL2, CD59, CFAP276, CHCHD10, CNTNAP1, COA7, COX6A1, CPOX, CTDSP1, CYP27A1, DARS2, DCTN1, DEGS1, DNAJB2, DNAJC3, DNM2, DNMT1, DRP2, DST, DYNC1H1, EGR2, ELP1, ERCC6, ERCC8, ETFDH, FAH, FAM126A, FBLN5, FBXO38, FGD4, FIG4, FLVCR1, FXN, GALT, GAN, GARS1, GBA2, GDAP1, GJB1, GJC2, GLA, GNB4, HADHA, HADHB, HARS1, HINT1, HK1, HMBS, HSPB1, HSPB8, IARS2, IGHMBP2, INF2, JAG1, KCNA2, KIF1A, KIF5A, LITAF, LMNA, LRSAM1, LYST, MCM3AP, MFN2, MMACHC, MME, MORC2, MPV17, MPZ, MT-ATP6, MTMR2, MTRFR, MT-RNR1, MT-TL1, MTTP, MYH14, NAGA, NDRG1, NEFH, NEFL, NGF, NTRK1, OPA1, OPA3, PDHA1, PDYN, PEX10, PEX7, PHYH, PLEKHG5, PLP1, PMM2, PMP2, PMP22, PNKP, PNPLA6, POLG, POLR3A, PPOX, PRDM12, PRKCG, PRNP, PRPS1, PRX, PTEN, PTPN11, PTRH2, RAB7A, REEP1, RETREG1, SACS, SBF1, SBF2, SCARB2, SCN10A, SCN11A, SCN9A, SCYL1, SEPTIN9, SETX, SH3TC2, SIGMAR1, SLC12A6, SLC25A19, SLC25A46, SLC52A2, SLC52A3, SLC5A7, SMN1, SORD, SOX10, SPAST, SPG11, SPG7, SPTBN4, SPTLC1, SPTLC2, SUCLA2, SURF1, SYT2, TFG, TRIM2, TRPA1, TRPV4, TTPA, TTR, TUBB3, TWNK, TYMP, VCP, VPS13A, VRK1, VWA1, WARS1, WNK1, XK, XPA, XRCC1, YARS1, ZFYVE26

## H) Nierensuperpanel – schmal

ACE, ACTG2, ACTN4, AGT, AGTR1, AGXT, AHI1, ALG8, ALG9, ALMS1, AMN, ANKS6, ANOS1, AP2S1, APOE, APRT, AQP2, ARHGDI, ARL13B, ARL6, ATP1A1, ATP6V0A4, ATP6V1B1, AVPR2, B9D2, BBS1, BBS10, BBS12, BBS2, BS4, BBS5, BBS7, BBS9, BNC2, BSND, C3, C5orf42, CA2, CASR, CC2D2A, CD151, CD46, CENPF, CEP104, CEP164, CEP290, CEP41, CEP55, CEP83, CFB, CFH, CFHR1, CFHR2, CFHR3, CFHR5, CFI, CHD7, CHRM3, CHRNA3, CLCN5, CLCNKB, CLDN10, CLDN16, CLDN19, CNNM2, COL4A1, COL4A3, COL4A4, COL4A5, COQ2, COQ6, COQ8B, CRB2, CSPP1, CTNS, CTU2, CUBN, CUL3, CYP24A1, DAAM2, DDX59, DGKE, DHCR7, DLC1, DLG5, DNAJB11, DSTYK, DYNC2H1, DZIP1L, EYA1, FAH, FAM20A, FAM58A, FAT1, FLCN, FN1, FRAS1, FREM1, FREM2, GANAB, GATA3, GATM, GLA, GLI3, GNA11, GON7, GPC3, GREB1L, GRHR, GRIP1, HAAO, HNF1B, HNF4A, HOGA1, HOXA13, HPRT1, HPSE2, HYLS1, ICK, IFT122, IFT140, IFT172, IFT27, IFT43, INF2, INPP5E, INVS, IQCB1, ITGA3, ITGA8, ITSN1, JAG1, KCNJ1, KCNJ10, KCNJ16, KDM6A, KIAA0586, KIAA0753, KIF7, KLHL3, KMT2D, KYNU, LAGE3, LAMB2, LCAT, LIFR, LMX1B, LRIG2, LRP4, LZTFL1, MAGED2, MAGI2, MAPKBP1, MKKS, MKS1, MMACHC, MOCOS, MT-TF, MUC1, MYH9, MYO1E, MYOCD, NADSYN1, NEK8, NIPBL, NOTCH2, NPHP1, NPHP3, NPHP4, NPHS1, NPHS2, NR3C2, NUP107, NUP133, NUP85, NUP93, OCRL, OFD1, OSSEP, PAX2, PBX1, PDSS2, PHEX, PKD1, PKD2, PKHD1, PLCE1, PLVAP, PMM2, PODXL, REN, RET, ROBO2, ROR2, RPGRIP1L, RRAGD, SALL1, SARS2, SCARB2, SCNN1A, SCNN1B, SCNN1G, SDCCAG8, SEC61A1, SGPL1, SIX5, SLC12A1, SLC12A3, SLC22A12, SLC2A2, SLC2A9, SLC2A9, SLC34A1, SLC34A3, SLC3A1, SLC4A4, SLC5A2, SLC7A9, SMARCAL1, STRA6, STRADA, TBC1D1, TBC1D8B, TBX18, TCTN1, TCTN2, TCTN3, TFAP2A, TMEM107, TMEM138, TMEM216, TMEM231, TMEM237, TMEM260, TMEM67, TMEM67, TNS2, TP53RK, TPRKB, TRAF3IP1, TRAP1, TRIM8, TRPC6, TRPM6, TSC1, TSC2, TTC21B, TTC8, TXNDC15, UMOD, VHL, VIPAS39, VPS33B, WBP11, WDPCP, WDR19, WDR35, WDR60, WDR73, WNK4, WT1, XDH, XPNPEP3, YRDC, ZIC3, ZMYM2

## I) Pankreatitis

CASR, CCL2, CEL, CELA3B, CFTR, CLDN2, CPA1, CTREB1, CTREB2, CTREB, CTSB, CXCL8, KRT8, MORC4, PRSS1, SPINK1, TRPV6

## J) Retinopathie

ABCA4, ABCC6, ABHD12, ACBD5, ACO2, ADAM9, ADAMTS18, ADGRV1, ADIPOR1, AFG3L2, AGBL5, AHI1, AHR, AIPL1, AIRE, ALDH3A2, ALMS1, ALPK1, AMACR, ARHGEF18, ARL13B, ARL2BP, ARL3, ARL6, ARSG, ASRGL1, ATF6, ATOH7, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9, BEST1, C1QTNF5, CABP4, CACNA1F, CACNA2D4, CAPN5, CC2D2A, CCT2, CDH23, CDH3, CDHR1, CEP164, CEP19, CEP250, CEP290, CEP78, CERKL, CFAP410, CFAP418, CFH, CHM, CLCC1, CLN3, CLN5, CLN6, CLN8, CLRN1, CLUAP1, CNGA1, CNGA3, CNGB1, CNGB3, CNNM4, COL18A1, COL4A1, COQ2, COQ5, CRB1, CRX, CSPP1, CTC1, CTNNA1, CTNNB1, CTSD, CWC27, CYP2R1, CYP4V2, DHDDS, DHX38, DMD, DRAM2, EFEMP1, ELOVL1, ELOVL4, ERCC6, ERCC8, ESPN, EXOSC2, EYS, FAM161A, FLVCR1, FRMD7, FZD4, GDF6, GNAT1, GNAT2, GNB3, GNPTG, GPR143, GPR179, GRK1, GRM6, GRN, GUCA1A, GUCA1B, GUCY2D, HCCS, HGSNAT, HK1, HMX1, IDH3A, IDH3B, IFT140, IFT172, IFT27, IFT74, IFT81, IKBKG, IMPDH1, IMPG1, IMPG2, INPP5E, IQCB1, JAG1, KCNJ13, KCNV2, KIAA1549, KIF11, KIF3B, KIZ, KLHL7, LAMA1, LCA5, LIG3, LRAT, LRIT3, LRP2, LRP5, LZTFL1, MAK, MAPKAPK3, MED12, MERTK, MFRP, MFSD8, MIR204, MKKS, MKS1, MMACHC, MSTO1, MTRFR, MT-TH, MTTTP, MT-TP, MT-TS2, MVK, MYO7A, NBAS, NDP, NEUROD1, NMNAT1, NPHP1, NPHP3, NPHP4, NR2E3, NRL, NYX, OAT, OFD1, OPN1LW, OPN1MW, OPN1SW, OTX2, P3H2, PANK2, PAX2, PCARE, PCDH15, PCYT1A, PDE6A, PDE6B, PDE6C, PDE6G, PDE6H, PDSS1, PEX1, PEX2, PEX6, PEX7, PGK1, PHYH, PLA2G5, PLK4, PNPLA6, POC1B, POC5, POMGNT1, POMT1, PPT1, PRCD, PRDM13, PROM1, PRPF3, PRPF31, PRPF4, PRPF6, PRPF8, PRPH2, PRPS1, RAB28, RAX2, RBP3, RBP4, RCBTB1, RD3, RDH11, RDH12, RDH5, REEP6, RGR, RGS9, RHO, RIMS2, RLBP1, RNU4ATAC, ROM1, RP1, RP1L1, RP2, RP9, RPE65, RPGR, RPGRIP1, RPGRIP1L, RS1, RTN4IP1, SAG, SAMD11, SCAPER, SDCCAG8, SEMA4A, SLC24A1, SLC25A46, SLC37A3, SLC38A8, SLC6A6, SNRNP200, SPATA7, SPP2, SPTLC1, SRD5A3, SSBP1, TIMM8A, TIMP3, TINF2, TLCD3B, TMEM216, TMEM218, TMEM231, TMEM237, TOPORS, TPP1, TRAF3IP1, TREX1, TRNT1, TRPM1, TSPAN12, TTC8, TTLL5, TTPA, TUB, TUBB4B, TUBGCP4, TUBGCP6, TULP1, UNC119, USH1C, USH1G, USH2A, USP45, VCAN, VPS13B, WDPCP, WDR19, WHRN, ZFYVE26, ZNF408, ZNF423

## **cfDNA DNA Hotspot Panel für solide Tumore (Archer LiquidPlex Solid Tumor Panel, aktualisiert am 04.04.2023, nicht im Akkreditierungsumfang)**

AKT1, ALK, AR, BRAF, CDK6, CTNNB1, EGFR, ERBB2, ESR1, FGFR1, FGFR2, FGFR3, HRAS, IDH1, IDH2, KIT, KRAS, MAP2K1, MET, NRAS, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, RET, ROS1, TP53