Gene und Exone der Panel:

Kommerzielle Panels

- **Oncomine™ BRCA1 and BRCA2 Panel**
- **Oncomine™ Comprehensive Panel DNA v3 (135 Gene)**
- **Oncomine™ Comprehensive Panel RNA v3 (51 Gene)**
- **Oncomine™ Focus Panel DNA (35 Gene)**
- **Oncomine™ Focus Panel RNA (23 Gene)**
- **Oncomine™ Fusion Panel**
- **Oncomine™ Solid Tumor (22 Gene)**

- **Oncomine™ Lung cfDNA Assay (11 Gene)**
- **Oncomine™ Colon cfDNA Assay (14 Gene)**
- **Oncomine™ Breast cfDNA Assay (10 Gene)**

- **Sarkom Rearrangement Panel (Archer™FusionPlex™Sarcoma)**
- **TMB (Tumormutationslast)**

CustomPanel

- **Lymphoma Custom Panel (68 Gene)**

Oncomine™ BRCA1 and BRCA2 Panel:
Dieses Panel deckt alle kodierenden Regionen dieser zwei Gene ab: BRCA1(2-3, 5-24), BRCA2(2-27)

Oncomine™ Comprehensive Panel_v3 DNA (135 Gene, davon 87 Hotspots und 48 voll abgedeckt):
Hotspots abgedeckte Gene (87)
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.

Komplett abgedeckte Gene (48)
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.

Copy number Gene (47):
AKT1, AKT2, AKT3, ALK, AR, AXL, BRAF, CCND1, CCND2, CCND3, CCNE1, CDK2, CDK4, CDK6, 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.

Oncomine™ Comprehensive Panel_v3 RNA (Genfusionen von 51 Genen)
ALK, AXL, BRAF, EGFR, ERBB2, ERG, ETV1, ETV4, ETV5, FGFR1, FGFR2, FGFR3, NTRK1, NTRK3, PDGFRA, PPARG, RAF1, RET, ROS1, AKT2, AR, BRCA1, BRCA2, CDKN2A, ERB84, ESR1, FGR, FLT3, JAK2, KRAS, MDM4, MET, MYB, MYBL1, NF1, NOTCH1, NOTCH4, NRG1, NTRK2, NUTM1, PDGFRB, PIK3CA, PRKACA, PRKACB, PTEN, RAD51B, RB1, RELA, RSPO2, RSPO3, TERT.

Oncomine™ Focus Assay DNA (35 Gene):
Hotspots abgedeckte Gene (35):
AKT1 (1,3), ALK (21-25), AR (6,8), BRAF (11,15), CDK4 (2), CTNNB1 (3), DDR2 (5), EGFR (3,7,12,15,18,19,20,21), ERBB2 (8,17-22), ERBB3 (2,3,6,8,9), ERBB4 (18), ESR1 (9), FGFR2 (7,8,9,12,14), FGFR3 (7,9,14,16), GNA11 (4,5), GNAQ (4,5), HRAS (2,3), IDH1 (4), IDH2 (4), JAK1 (14,15,16), JAK2 (14), JAK3 (11,12,15), KIT (8,9,11,13,17), KRAS (2,3,4), MAP2K1 (2,3,6), MAP2K2 (2), MET (14,16,19), MTOR (30,39,40,43,47,53), NRAS (2,3,4), PDGFRA (12,14,18), PIK3CA (2,5,6,8,10,14,19,21), RAF1 (7,12), RET (10,11,13,15,16), ROS1 (36,38), SMO (4,6,8,9)

Copy number Gene (19):
ALK, AR, BRAF, CCND1, CDK4, CDK6, EGFR, ERBB2, FGFR1, FGFR2, FGFR3, FGFR4, KIT, KRAS, MET, MYC, MYCN, PDGFRA, PIK3CA

Oncomine™ Focus Panel RNA (Fusion, 23 Gene):
ABL1, ALK, AKT3, AXL, BRAF, EGFR, ERBB2, ERG, ETV1, ETV4, ETV5, FGFR1, FGFR2, FGFR3, MET, NTRK1, NTRK2, NTRK3, PDGFRA, PPARG, RAF1, RET, ROS

Oncomine™ Fusion Panel RNA (Fusion, 4 Gene):
ALK, NTRK1, RET, ROS1

CE-IVD Oncomine™ Fusion Panel (Rearrangement von ALK, ROS1, RET und NTRK1 mit korrespondierenden Partnern, Exone in Klammern, Analyse auf RNA Ebene):
EML4(6)-ALK(19), EML4(2)-ALK(20), EML4(15)-ALK(20), EML4(17)-ALK(20), EML4(17)-ALK(20), EML4(14)-ALK(20), EML4(13)-ALK(20), EML4(13)-ALK(20), EML4(13)-ALK(20), EML4(18)-ALK(20), EML4(2)-ALK(20), EML4(20)-ALK(20), EML4(20)-ALK(20), EML4(6a)-ALK(20), EML4(6a)-ALK(20), EML4(6b)-ALK(20), EML4(6b)-ALK(20), KIF5B(15)-ALK(20), KIF5B(15)-ALK(20), KIF5B(17)-ALK(20), KIF5B(24)-ALK(20), KLC1(9)-ALK(20), EML4(14)-ALK(20), KIF5B(15)-RET(11), KIF5B(24)-RET(11), KIF5B(24)-RET(8), CCDC6(1)-RET(12), KIF5B(15)-RET(12), KIF5B(16)-RET(12), KIF5B(22)-RET(12), KIF5B(23)-RET(12), CD74(6)-ROS1(32), SDC4(2)-ROS1(32), SDC4(4)-ROS1(32), SLC34A2(13)-ROS1(32), SLC34A2(4)-ROS1(32), SDC4(2)-ROS1(34), SDC4(4)-ROS1(34), CD74(6)-ROS1(34), EZR(10)-ROS1(34), SLC34A2(4)-ROS1(34), SLC34A2(13)-ROS1(34), TPM3(7)-ROS1(35), LRIG3(16)-ROS1(35), GOPC(8)-ROS1(35), GOPC(4)-ROS1(36), CEL(7)-NTRK1(7), NFASC(18)-NTRK1(10), IRF2BP2(1)-NTRK1(10), TFG(5)-NTRK1(10), SQSTM1(5)-NTRK1(10), SSBP2(12)-NTRK1(12), NTRK1(17)-DYNC2H1(86), CD74(3)-NTRK1(13), MPRIP(14)-NTRK1(13), MPRIP(18)-NTRK1(13), MPRIP(21)-NTRK1(13), CUX1(10)-RET(12), HIP1(28)-ALK(20), HIP1(21)-ALK(20), TPR(15)-ALK(20)

Oncomine™ Solid Tumour DNA Panel (22 Gene, Exone in Klammern):
AKT1(3), ALK(22,23,25), BRAF(11,15), CTNNB1(3), DDR2(5,8,12,13,14,15,17), EGFR(12,18,19,20,21), ERBB2(19,20,21), ERBB4(3,4,6,7,8,9,15,23), FBXW7(5,8,9,10,11), FGFR1(4,7), FGFR2(7,9,12), FGFR3(7,9,14,16,18), KRAS(2,3,4), MAP2K1(2), MET(2,14,16,19), NOTCH1(26,27), NRAS(2,3,4), PIK3CA(10,14,21), PTEN(1,3,6,7,8), SMAD4(3,5,6,8,9,10,11,12), STK11(1,4,5,6), TP53(2,4,5,6,7,8,10)

Oncomine™ Lung cfDNA Assay:
11 Gene, ALK, BRAF, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, PIK3CA, ROS1, TP53
(>150 hotspots including: EGFR: T790M, C797S, L858R, Exon 19 del, KRAS: G12X, G13X, Q61X, BRAF: V600E, ALK: Exon 21-25, PIK3CA: E545K, H1047R, E542K)

Oncomine™ Colon cfDNA Assay (14 Gene):
AKT1(3), APC(16), BRAF(15), CTNNB1(3), EGFR(12), ERBB2(8, 19,20,21,22), FBXW7(9,10,11,12), GNAS(8,9), KRAS(2,3,4), MAP2K1(2,6), NRAS(2,3), PIK3CA(10,21), SMAD4(3,9,10,12), TP53(5,6,7,8)

Oncomine™ Breast cfDNA Assay Gene List (10 Gene):
AKT1(3), EGFR(21), ERBB2(19), ERBB3(3,7,8,9,23), ESR1(6,8,9), FBXW7(11), KRAS(2), PIK3CA(5,8,10,14,21), SF3B1(15), TP53(5,6,7,8).

Sarkom Rearrangement Panel „Archer™FusionPlex™Sarcoma Kit“ (26 Gene und ihre Fusionspartner):
ALK, CCNB3, CAMTA1, CIC, EPC1, EWSR1, FOXO1, FUS, GLI1, HMGA2, JAZF1, MEAF6, MKL2, NCOA2, NTRK3, PDGFB, PLAG1, ROS1, SS18, STAT6, TAF15, TCF12, TFE3, TFG, USP6, YWHAE
Für weitergehende Informationen: http://archerdx.com/fusionplex-assays/sarcoma

Lymphoma Custom Panel (68 Gene, Exone in Klammern):
Hotspots abgedeckte Gene (48)
BCL10, BCL2L11, BCL6, BRAF, CALR, CARD11, CCND1, CD79A, CD79B, CELSR2, CREBBP, DNMT3A, EP300, EZH2, FBXW7, FLT3, FOXO1, IDH1, IDH2, IKZF3, IRF4, JAK2, JAK3, KIT, KLHL6, KRAS, MAP2K1, MCL1, MLL3, MTOR, MYD88, NOTCH1, NOTCH2, NRAS, PIK3CA, PIK3CD, PIK3R1, PTPN11, RELN, RHOA, SF3B1, SGK1, STAT3, STAT6, TET2, TLN2, U2AF1, XPO1.

Komplett abgedeckte Gene (20)
ATM, B2M, BCL2, BTG1, CDKN2A, EBF1, GNA13, HIST1H1C, IKZF1, KMT2D, MEF2B, MYC, PAX5, PIM1, PRDM1, PTEN, PTPN1, SOCS1, TNFAIP3, TP53

Oncomine Tumor Mutation Load Assay (TMB)
Untersuchung der Mutationen in folgenden Genen (409)

TNFRSF14, PLEKHG5, PIK3CD, MTOR, SDHB, PAX7, ARID1A, LCK, MYCL1, MPL, MUTYH, TAL1, CMPK1, CDKN2C, JUN, JAK1, BCL10, DPYD, TRIM33, NRAS, NOTCH2, PDE4DIP, ITGA10, BCL9, MCL1, ARNT, CKS1B, MUC1, NTRK1, SDHC, DDR2, PBX1, ABL2, RNASEL, RNF2, TPR, PTGS2, CDC73, PIK3C2B, MDM4, IKBKE, MARK1, PARP1, MTR, FH, AKT3, SOX11, MYCN, NCOA1, DNMT3A, ALK, EML4, MSH2, MSH6, BCL11A, REL, XPO1, TCF7L1, AFF3, PAX8, ERCC3, LRP1B, ACVR2A, NFE2L2, PMS1, SF3B1, CREB1, IDH1, ERBB4, FN1, STK36, PAX3, UGT1A1, CRBN, FANCD2, VHL, PPARG, RAF1, XPC, TGFBR2, MLH1, ITGA9, MYD88, CTNNB1, LTF, SETD2, BAP1, PBRM1, MAGI1, MITF, FOXP1, EPHA3, GATA2, EPHB1, PIK3CB, FOXL2, ATR, PIK3CA, SOX2, BCL6, LPP, TNK2, FGFR3, WHSC1, RHOH, PHOX2B, PDGFRA, KIT, KDR, LPHN3, AFF1, NFKB1, TET2, IL2, FBXW7, SDHA, MTRR, IL7R, GDNF, LIFR, IL6ST, PIK3R1, APC, RAD50, CTNNA1, CSF1R, PDGFRB, NPM1, FGFR4, NSD1, FLT4, IRF4, DEK, POU5F1, NOTCH4, DAXX, PIM1, FOXP4, HSP90AB1, PKHD1, ICK, DST, BAI3, MAP3K7, EPHA7, PRDM1, FOXO3, ROS1, SGK1, MYB, TNFAIP3, ESR1, SYNE1, IGF2R, RPS6KA2, CARD11, PMS2, ETV1, IKZF1, EGFR, SBDS, AKAP9, CDK6, SAMD9, TRRAP, EPHB4, PIK3CG, MET, POT1, GRM8, SMO, TRIM24, BRAF, EPHB6, EZH2, MLL3, XRCC2, WRN, GPR124, FGFR1, KAT6A, IKBKB, HOOK3, PRKDC, PLAG1, NCOA2, NBN, RUNX1T1, UBR5, CSMD3, EXT1, MYC, RECQL4, JAK2, PTPRD, PSIP1, CDKN2A, CDKN2B, TAF1L, FANCG, PAX5, GNAQ, SYK, FANCC, PTCH1, XPA, TLR4, ABL1, NUP214, TSC1, RALGDS, BRD3, NOTCH1, KLF6, GATA3, MLLT10, RET, MAPK8, NCOA4, TET1, KAT6B, BMPR1A, PTEN, FAS, CYP2C19, BLNK, TLX1, NFKB2, SUFU, TCF7L2, FGFR2, HRAS, IGF2, NUP98, RRM1, FANCF, WT1, EXT2, DDB2, MEN1, CCND1, NUMA1, MRE11A, MAML2, BIRC3, BIRC2, GUCY1A2, ATM, SDHD, MLL, CBL, CHEK1, ETS1, FLI1, CCND2, ING4, ZNF384, KRAS, ADAMTS20, ARID2, MLL2, ATF1, SMUG1, ERBB3, DDIT3, CDK4, MDM2, PTPN11, HNF1A, HCAR1, EP400, CDK8, FLT3, FLT1, FOXO1, RB1, ERCC5, IRS2, LAMP1, BCL2L2, NKX21, NIN, HIF1A, TSHR, TRIP11, DICER1, TCL1A, BCL11B, HSP90AA1, AKT1, THBS1, BUB1B, CASC5, LTK, TGM7, TCF12, MAP2K1, PML, NTRK3, IDH2, BLM, IGF1R, TSC2, CREBBP, SOCS1, ERCC4, MYH11, PALB2, IL21R, CYLD, MMP2, CDH11, CDH5, CDH1, MAF, FANCA, NLRP1, TP53, PER1, AURKB, MAP2K4, FLCN, NF1, CDK12, PGAP3, ERBB2, RARA, ETV4, ITGB3, COL1A1, HLF, FANCJ, CD79B, PRKAR1A, 43352, BIRC5, RNF213, ZNF521, CDH2, SMAD2, MBD1, SMAD4, DCC, MALT1, CDH20, BCL2, STK11, TCF3, GNA11, FZR1, MAP2K2, KEAP1, SMARCA4, JAK3, PIK3R2, CRTC1, CCNE1, CEBPA, AKT2, AXL, CD79A, CIC, BCL3, MARK4, ERCC2, ERCC1, PPP2R1A, AURKC, BCL2L1, ASXL1, SRC, MAFB, TOP1, PLCG1, PTPRT, AURKA, GNAS, RUNX1, ERG, ITGB2, CRKL, MAPK1, BCR, SMARCB1, MN1, CHEK2, NF2, TIMP3, MYH9, PDGFB, EP300, CYP2D6, USP9X, KDM6A, SSX1, WAS, GATA1, TFE3, KDM5C, FAM123B, AR, TAF1, ATRX, TBX22, BTK, PAK3, SH2D1A, MAGEA1, G6PD

Allgemeine Bemerkung:
Die Exon-Angaben in der Rubrik „Hotspots“ sind zur groben Orientierung gedacht. Die Nennung eines Exons bedeutet nicht, dass zwangsläufig das gesamte Exon abgedeckt ist. Falls Sie wissen möchten, ob ein spezielles Codon in einem Gen von einem der Panels erfasst wird, wenden Sie sich bitte an die entsprechenden Kontaktpersonen.