

TABLE 1

A			Buffy coat Primary tumor Enriched CTC cDNA CTC_r4 CTC_r8 CTC_r9 CTC_r11 CTC_r13 CTC_r15 PLF_r1 PLF_r2 PLF_r4 PLF_pool_r5 PLF_pool_r6 PLF_pool_r7	Top 5 altered cancer genes present in CN regions of MBC samples ¹	Common CNA in HER2+ primary BC ²
CN region	size	cytoband			
chr1:50997293-64323692	13326401	1p32.3-31.3		CDKN2C, FAF1, JAK1, JUN	1p32 Loss
chr1:120308911-249250621	128941710	1p12-q44		CKS1B, ELF3, IKBKE, IL10, MUC1, PIK3C2B	-
chr3:123447117-135477221	12030104	3q21.1-q22.2		CHBP, EPHB1, GATA2, RPN1	-
chr5:140059514-180915260	40855746	5q31.3-q35.3		CSF1R, EBF1, FGFR4, GABRA6, PDGFRB	FGFR4 (5q35.2) Amp
chr6:38790939-41838571	3047632	6p21.2-21.1		DAXX, DDR1, HIST1A, HSP90AB1, PHF1	-
chr8:116628446-141352023	24723577	8q23.3-q24.3		AGO2, EXT1, MYC, NDRG1, RAD21, RECQL4	8q23.3-q24.2 Amp
chr11:76432313-81577622	5145309	11q13.5-q14.1		EMSY, GAB2, PAK1	11q13.5-q14.1 Amp
chr11:81577623-135006516	53428893	11q14.1-q25		ATM, BIRC3, DOX10, PGR, SESN3	-
chr16:1-34209948	34209947	16p13.3-p11.2		FLYWCH1, NTHL1, PDPK1, PRSS8, WDR90	-
chr16:66623882-71966375	5342493	16q21-q22.2		CDH1, CMT2C, CTCF, EXOSC6, ZFH3	-
chr17:6459708-9569254	3109546	17p13.2-p13.1		ALOX12B, AURKB, GAS7, PER1, TP53	-
chr17:31865443-48987552	17122111	17q12-q21.33		CDK12, COL1A1, ERBB2, IKZF3, MMLT6	17q12-q21, HER2 (17q12), TOP2A (17q21.2) Amp
chr17:68783128-81195210	12412084	17q24.3-25.3		ASPSR1, CANT1, H3F3B, SEPTIN8, SRSF2	17q23-24 Gain
chr18:160918069-78077248	44349571	18q11.1-q21.33		BCL2, PIK3C3, PMAIP1, SMAD4, SS18	-
chr20:16154173-48577121	17159179	18q21.33-q23		BCL2, KDSR, SERPINB3 and 4, TNFRSF11A	-
chr20:48577121-63025520	34222948	20q12.1-q13.13		PTPN1, SDCA, NCOA3	-
chrX:54632203-68306116	14448399	20q13.13-q13.33		GNAS, ZNF217, PTK6, SS18L1, RTEL1	-
	13673913	Xq11.22-q13.1		-	-

B			Buffy coat Primary tumor Enriched CTC cDNA CTC_r3 CTC_r5 CTC_r7 CTC_r9 CTC_pool_r1 CTC_pool_r2 CTC_pool_r3 CTC_pool_r4 CTC_pool_r5 CTC_pool_r6 CTC_pool_r7 CTC_pool_r8 CTC_pool_r9 CTC_pool_r10 CTC_pool_r11 CTC_pool_r12	Top 5 altered cancer genes present in CN regions of MBC samples ¹	Common CNA in LumB primary BC ²
CN region	size	cytoband			
chr1:12768035-19417382	6649347	1p36.22-p36.12		ID3, MTOR, PIK3CD, SOHB, SPEN	-
chr1:125418345-249250621	128941710	1q12-q44		CKS1B, ELF3, IL10, IKBKE, MUC1	1q Gain
chr5:29991567-50013540	20021973	5p13.3-q11.1		DROSHA, FGF10, ILTR, LIFR, RICTOR	-
chr5:56222548-180915260	124692712	5q11.2-q35.3		EBF1, MEF2C, PIK3R1, PLK2, SNCAIP	FGFR4 (5q35.2) Amp
chr7:135245378-152664578	17419200	7q33-q36.2		BRAF, E2F2, KLF, MGAM, PRSS1	-
chr8:1-31975155	31975154	8p23.3-p12		SEC02, GATA4, NRG1, PP2R2A, WRN	8p Loss
chr8:31975156-146364022	114388866	8p12-q24.3		EXT1, NDRG1, RAD21, RECQL4, MYC	8p12-p11, FGFR1 (8p11.2), 8q11-q24 Amp
chr9:1-141213431	141213430	9p24.3-q34.3		EGLF7, NOTCH1, OMD, SMARCA2, TRAF2	-
chr10:77589640-81169187	3579347	10q22.2-q22.3		KAT5B	-
chr11:74369316-79024952	4655636	11q13.4-q14.1		EMSY, GAB2, INPPL1, NUMA1, PAK1	11q13-q14 Amp
chr11:79024953-135006516	55981563	11q14.1-q25		ATM, BIRC3, DOX10, PGR, SESN3	ATM (11q22.3) Loss
chr12:1-22271636	22271635	12p13.33-p12.1		CDKN1B, ETNK1, KRAS, PIK3C2G, RECQL	-
chr12:65956575-85017955	19061380	12q14.3-q21.31		FRS2, HMG2A, MDM2, PTPRB, WIF1	CDK4 (12q14), MDM2 (12q15) Amp
chr12:114767595-133851895	19084300	12q24.21-q24.33		BCL7A, CLIP1, KMT5A, KSR2, TBG3	-
chr13:1-29666256	29666255	13p13-q12.3		BRCA2, CDK3, CDK2, FLT1, FLT3	-
chr13:29666257-32748636	3082379	13q12.3-q13.1		BRCA2, FLT1, PDSB	-
chr13:32748637-115169878	82421241	13q13.1-q34		CUL4A, ERCC5, FGF14, IRS2, RB1	13q Loss
chr14:1-30426116	30426115	14p13-q12		CCNB1IP1, PARP2, PARKD1	-
chr15:1-102531392	102531391	15p13-q26.3		CHD2, FURIN, IDH2, IGF1R, NTRK3	-
chr16:31746277-46964199	15217922	16p11.2-q11.2		FUS, MAPK3, PRSS8, ESTD1A	-
chr16:46964200-90354753	43390553	16q11.2-q24.3		ANKRD11, SMTR2, CYLD, FANCA, PLCG2	16q Loss
chr17:1-21031408	21031407	17p13.3-p11.2		ALOX12B, FLCN, GAS7, MAP2K4, TP53	17p Loss
chr18:1659475-7920414	6260939	18p11.32-p11.23		YES1	-
chr18:27273239-35536059	8262820	18q12.1-q12.2		ELP2, ZNF24	-
chr18:48406902-70702106	22295204	18q21.2-q22.3		BCL2, PMAIP1, SERPINB3A, SMAD4, TNFRSF11A	-
chr20:33212059-36319597	3107538	20q11.22-q11.23		SAMHD1, SRC	20q Gain
chr20:48577121-63025520	14448399	20q13.13-q13.33		GNAS, PTK6, RTEL1, SS18L1, ZNF217	20q13 Amp
chrX:64015184-87922181	23906997	Xq11.2-q21.31		-	-
chrX:87922181-92531641	4609460	Xq21.31-q21.32		-	-
chrX:92531642-137950017	45418375	Xq21.32-q26.3		-	-
chrX:137950018-140038498	2088480	Xq26.3-q27.1		-	-
chrX:140038499-145648978	5610479	Xq27.1-q27.3		-	-

Amplification

Gain

Deletion

Loss