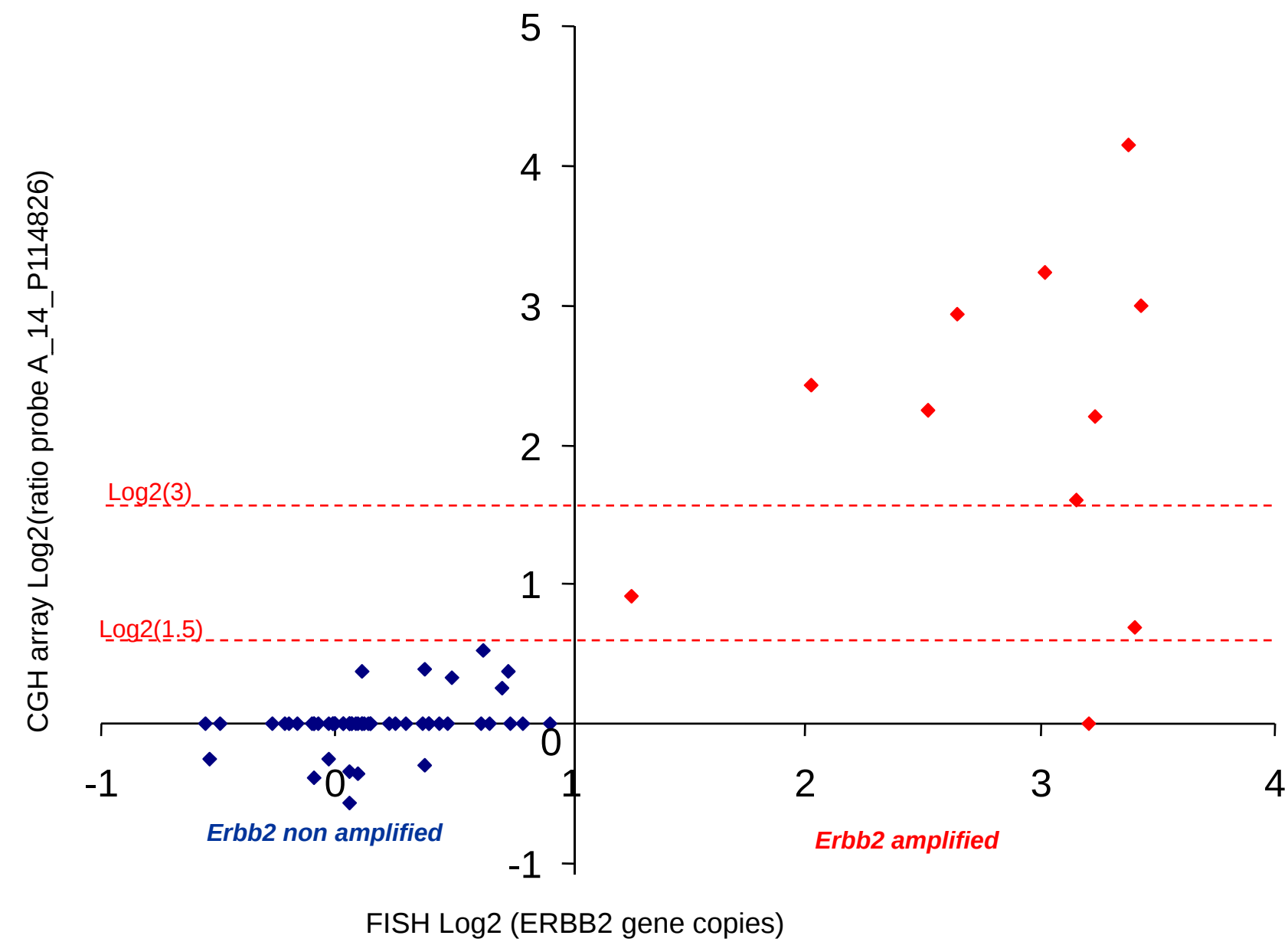
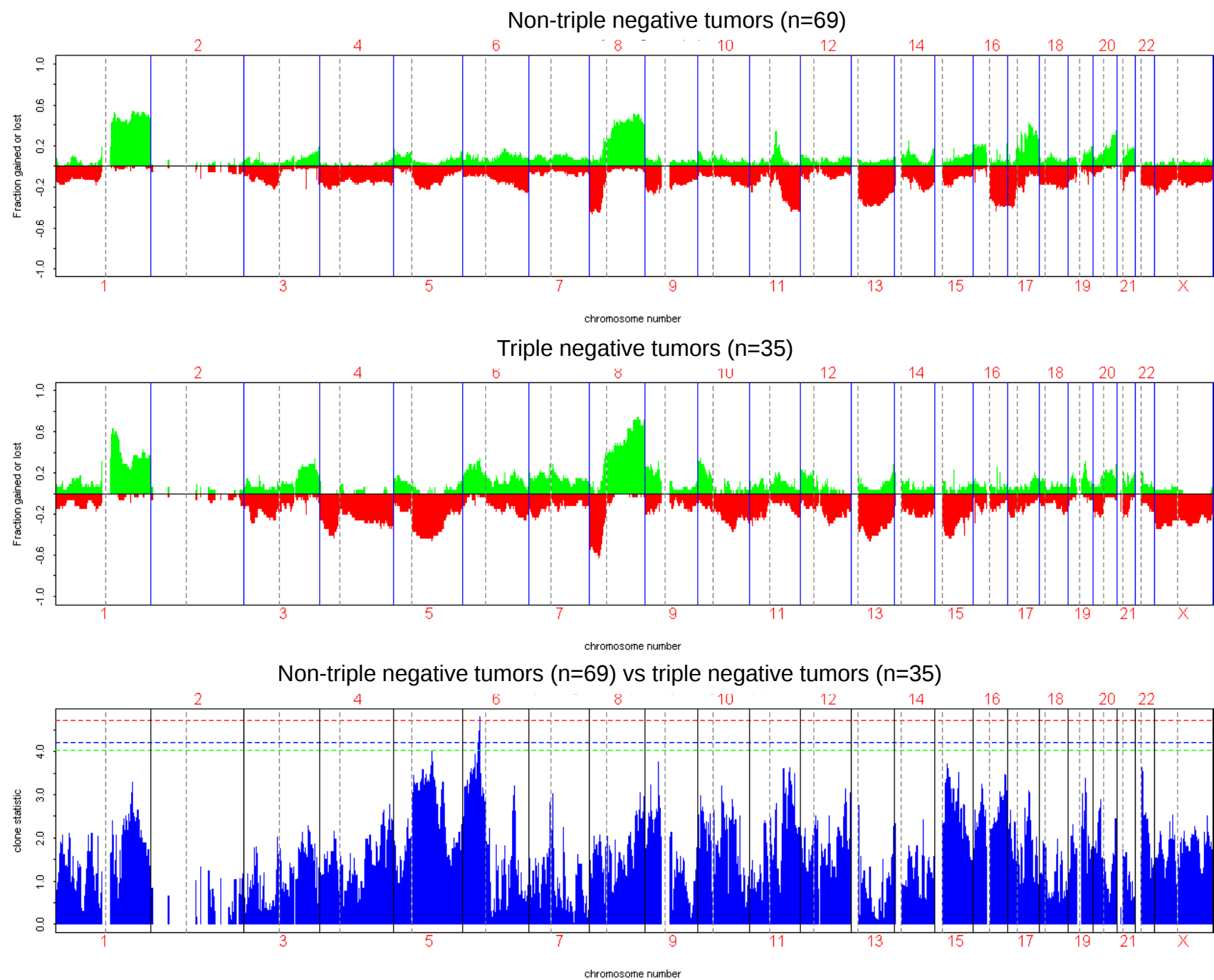


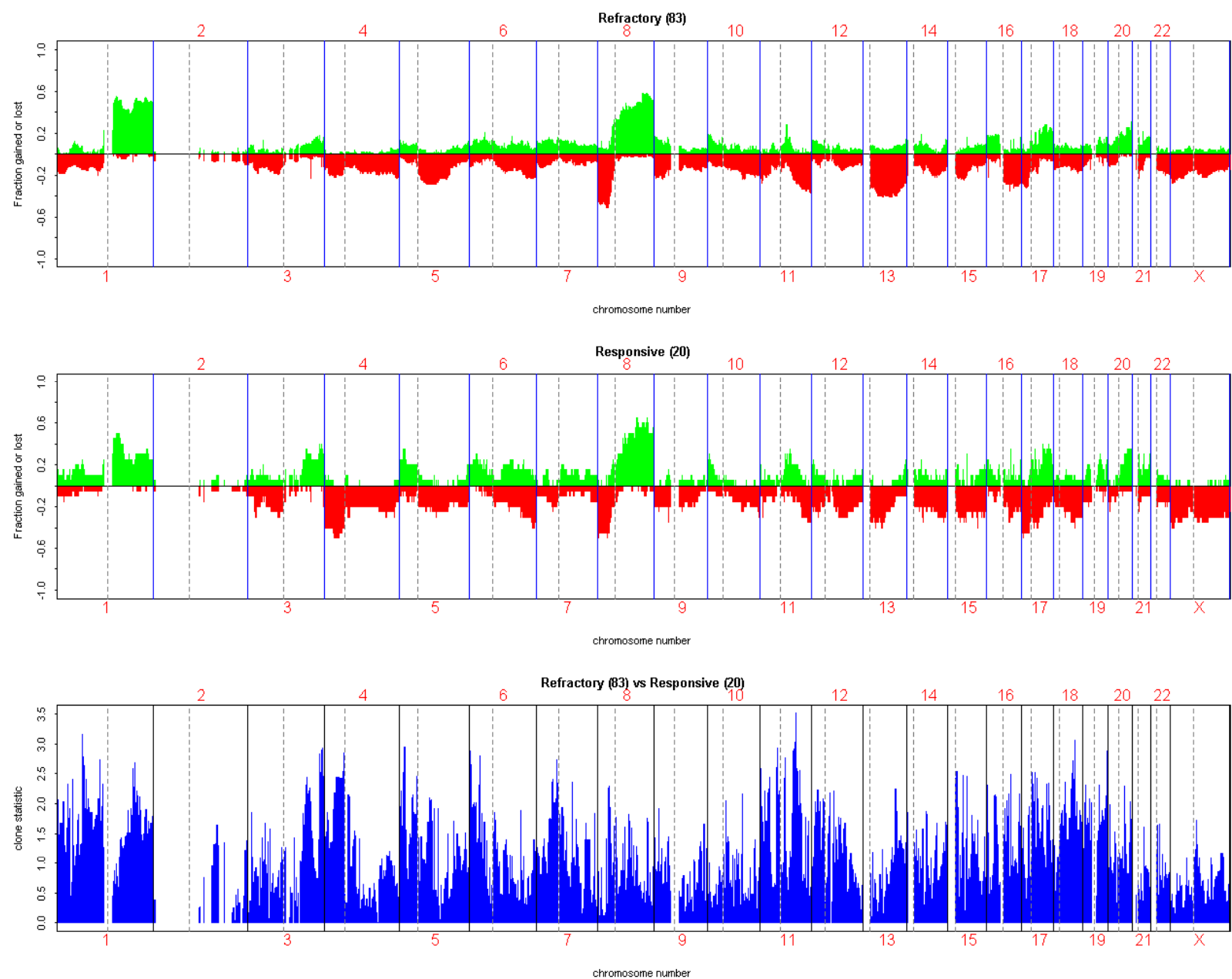
Supplementary figure 1. Concordance between HER-2 amplification measured by FISH and CGH



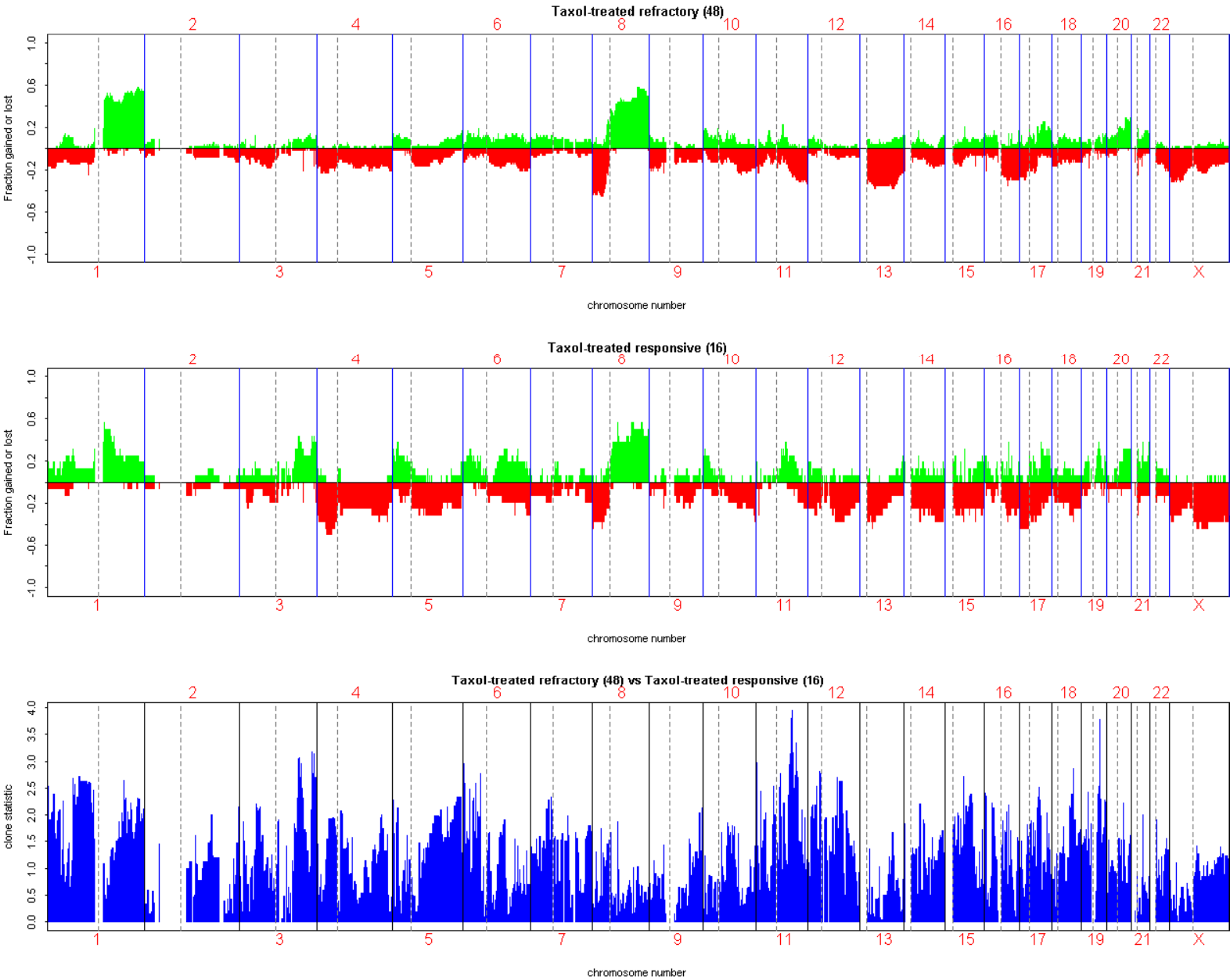
Supplementary Figure 2. Gained and lost regions according to triple-negativity



Supplementary Figure 3. Gained and lost regions according to chemotherapy response



Supplementary Figure 4. Gained and lost regions according to taxanes efficacy



Supplementary Table 1. Patient characteristics (n=106).

Characteristic	N (%)
Age (median, range)	51 (28-73)
cT	
cT0/T1	6 (6%)
cT2	53 (50%)
cT3	18 (17%)
cT4	29 (17%)
cN	
cN0	24 (23%)
cN1	50 (47%)
cN2	23 (22%)
cN3	9 (8%)
Tumor grade	
Grade 1	6 (6%)
Grade 2	39 (37%)
Grade 3	47 (43%)
Not assessable	14 (14%)
Estrogen receptor expression	
Negative	45 (42%)
Positive	60 (57%)
Unknown	1 (1%)
Progesteron receptor expression	
Negative	57 (54%)
Positive	47 (44%)
Unknown	2 (2%)
Her2 status	
Normal	95 (90%)
Overexpression and/or amplification	11 (10%)
Preoperative chemotherapy	
T/FAC*	66 (62%)
FAC	38 (36%)
Trastuzumab-containing regimen	2 (2%)
Pathologic complete remission	
No	83 (78%)
Yes	20 (19%)
Not assessable	3 (3%)

*: Sequential Paclitaxel / FAC (or FEC) or docetaxel /FEC (n=2)

Supplementary Table 2. Minimum Common region (MCR) gained in more than 20% of samples:

Band1	Probes	Freq	Genes
3q27.1	24	21%	AP2M1 CLCN2 DVL3 EIF4G1 EPHB3 POLR2H PSMD2 THPO CHRDECE2 ALG3 ABCF3 MGC2408 LOC90113 CAMK2N2 FAM131A
8p12-p11.21	128	24%	ADRB3 ANK1 CHRN3 ADAM3A EIF4EBP1 FGFR1 FNTA ADAM2 IKBKB INDO PLAT POLB SFRP1 SLC20A2 STAR TACC1 VDAC3 MYST3 ADAM18 ADAM9 CHRNA6 ASH2L BAG4 AP3M2 ERLIN2 PROSC DDHD2 GPR124 DKK4 LSM1 GOLGA7 WHSC1L1 THAP1 BRF2 C8orf4 PLEKHA2 FKSG2 ZMAT4 ZNF703 RAB11FIP1 RNF170 TM2D2 FLJ23356 GINS4 HOOK3 PPAPDC1B C8orf40 GOT1L1 AGPAT6 LETM2 HGSNAT NKX6-3 KCNU1 LOC157860 INDOL1 HTRA4 ADAM32 TMDCI1 LOC286170 FLJ43582
8q13.1	1	45%	-
8q23.3-24.12	64	56%	EXT1 NOV TNFRSF11B ENPP2 RAD21 TAF2 TRPS1 COL14A1 EIF3S3 COLEC10 MRPL13 DEPDC6 DCC1 C8orf53 THRAP6 MAL2 SLC30A8 SAMD12 LOC441376
8q24.12	5	56%	SNTB1
8q24.13-24.22	80	56%	ANXA13 MYC NDUFB9 POU5F1P1 PVT1 SQLE MTSS1 KIAA0196 TRIB1 RNF139 ATAD2 DDEF1IT1 DDEF1 FAM49B TRMT12 C8orf32 MLZE TATDN1 FBXO32 CCDC26 ZNF572 C8orf78 TMEM65 LOC157381 FAM84B FAM91A1 LOC286052 NSMCE2 C8ORFK36 C8orf54 TMEM75 FER1L6
8q24.3	80	50%	CYC1 CYP11B1 CYP11B2 EE1F1D GLI4 GML GPT GRINA HSF1 LY6E LY6H NFKBIL2 PLEC1 RPL8 TSTA3 ZNF7 PSCA LY6D DGAT1 GPAA1 FOXH1 RECQL4 LRRC14 ZNF623 SIAHBP1 ZC3H3 BOP1 SCRIB FBXL6 OPLAH COMMD5 CPSF1 CYHR1 VPS28 C8orf30A C8orf55 EXOSC4 LY6K SLC39A4 SLURP1 ZNF250 PYCRL LYNX1 C8orf51 GPR172A GSDMD1 ZNF696 KIAA1688 ZNF34 SHARPIN EPPK1 SCRT1 MAF1 PARP10 TIGD5 MGC15613 PPP1R16A ZNF251 KIFC2 NAPRT1 MFSD3 RHPN1 TOP1MT LYPD2 ADCK5 MAPK15 ZNF707 BREA2 FAM83H C8orf31 LOC286126 ZFP41 LOC338328 NRBP2 ZNF517 KIAA1875 C8ORFK29 SPATC1 KIAA1833 MAFA MGC70857 LRRC24 C8orf66 C8orf73
11q13.2-13.4	53	24%	CCND1 CPT1A DHCR7 CTTN FGF3 FGF4 IGHMBP2 KRTAP5-9 PPFIA1 FADD FGF19 SHANK2 MYEOV TMEM16A NADSYN1 FAM86C KRTAP5-8 MRGPRD MRPL21 TPCN2 ORAOV1 C11orf76 DEFB108B LOC338694 KRTAP5-10 FLJ42102 FLJ42258 KRTAP5-7 KRTAP5-11
14q21.1	1	21%	FOXA1
20q13.33	92	27%	CDH4 CHRNA4 COL9A3 EE1F1A2 NPBWR2 KCNQ2 LAMA5 MYT1 NTSR1 OPRL1 PSMA7 PTK6 RPS21 SRMS TAF4 TCEA2 TPD52L2 TNFRSF6B OSBPL2 ARFRP1 RGS19 TCFL5 ADRM1 OGFR DDO1 HRH3 PRPF6 SS18L1 GTPBP5 GMEB2 SLC04A1 STMN3 RTEL1 SOX18 YTHDF1 LIME1 UCKL1 C20orf11 C20orf20 ARFGAP1 SLC2A4RG ZNF512B COL20A1 C20orf59 C20orf51 C20orf195 C20orf149 BIRC7 DNAJC5 CABLES2 ZGPAT PRIC285 BHLHB4 C20orf58 C20orf166 GATA5 ZBTB46 SAMD10 C20orf135 C20orf181 C20orf151 RP11-93B14.6 LSM14B LOC198437 FLJ30313 PRR17 FLJ44790 HAR1A HAR1B
21q21.3	1	21%	MRPL39

Supplementary table 3. Minimal Common region (MCR) lost in at least 20% of the overall population

Band1	Band2	Probes	Freq	Genes
3p12.3	3p12.2	34	22%	GBE1 ROBO1 ROBO2
3q26.1	3q26.1	1	21%	-
4q34.1	4q35.2	142	20%	AGA SLC25A4 CASP3 DCTD F11 ACSL1 FAT GPM6A HPGD ING2 IRF2 KLKB1 MTNR1A TLR3 VEGFC GLRA3 SORBS2 ADAM29 DKFZP564J102 FBXO8 PDLIM3 CLDN22 NEIL3 C4orf20 CDKN2AIP ODZ3 LRP2BP STOX2 KIAA1430 SPCS3 FLJ12716 MLF1IP WWC2 KIAA1712 SNX25 MGC45800 WDR17 ZFP42 SPATA4 ENPP6 ASB5 FLJ30277 RWDD4A CCDC111 CCDC110 LOC285431 CYP4V2 LOC285441 LOC285500 LOC285501 LOC339975 ANKRD37 LOC389247 HELT FAM92A3 MGC24125 LOC441054 LOC442122 UNQ9368 FLJ38576
5q12.1	5q13.1	76	25%	TRIM23 HTR1A KIF2A CD180 SDCCAG10 ADAMTS6 MAST4 PPWD1 DIMT1L IPO11 SGTB PRO2214 ERBB2IP LOC57399 NLN ZSWIM6 CENPK FLJ13611 NDUFA12L SFRS12 FLJ37543 RNF180 P18SRP LOC375449 LOC389293 RGS7BP FLJ46010 DKFZP686E2158 FLJ11903
5q13.1	5q21.1	347	28%	(contains 143 genes) CCNB1 CCNH CDK7 CHD1 CKMT2 VCAN DHFR F2R F2RL1 FOXD1 GLRX GTF2H2 TNPO1 LNPEP MAP1B MSH3 NAIP OCLN PCSK1 RAD17 RASA1 RASGRF2 TAF9 NR2F1 THBS4 XRCC4 ENC1 EDIL3 IQGAP2 RHOBTB3 ELL2 SSBP2 POLK ARTS-1 R1OK2 LRAP CENPH JMY
5q21.1	5q21.1	8	25%	ST8SIA4
5q21.1	5q21.1	17	25%	PAM SLCO6A1 LOC285708 SLCO4C1
6q25.1	6q25.1	19	24%	PCMT1 LATS1 UST KATNA1 MAP3K7IP2 LRP11 PPIL4 C6orf72 ZC3H12D NUP43 SUMO4
6q25.1	6q25.1	8	24%	ULBP3 ULBP2 ULBP1 PPP1R14C RAET1L RAET1G RAET1K
6q25.2	6q27	208	24%	ACAT2 CCR6 GPR31 IGF2R KIF25 LPA MAS1 MAP3K4 MLLT4 OPRM1 PARK2 PLG RPS6KA2 SLC22A1 SLC22A3 SLC22A2 SOD2 T TCP1 TCP10 TCTE3 DYNLT1 THBS2 VIL2 RNASET2 SYNJ2 QKI WTAP PDE10A FGFR1OP RBM16 PIP3-E TIAM2 C6orf54 DLL1 MRPL18 CLDN20 NOX3 TFB1M SNX9 BRP44L UNC93A PHF10 C6orf70 AGPAT4 TULP4 ARID1B TMEM181 SMOC2 MGC5618 ZDHHC14 FRMD1 C6orf59 C6orf208 LPAL2 RSHL2 TTL2 FAM120B FNDC1 SERAC1 C6orf176 SYTL3 SFT2D1 TAGAP PACRG CNKSR3 PNLD1 LOC154449 DACT2 C6orf118 LOC202459 WDR27 LOC285796 MGC35308 LOC285804 LOC340178 C6orf120 FLJ27255 DKFZp451B082 TCP10L2 LOC401286 DKFZp686L13185 C6orf122 FLJ38122 GTF2H5 LOC441177 LOC729603
9p21.3	9p21.3	1	24%	IFNA2
9p21.3	9p21.3	4	24%	MTAP
11p15.4	11p15.4	3	21%	ZNF195
11p15.4	11p15.4	1	25%	-
11p15.4	11p15.4	2	26%	OR5P2
11q22.3	11q22.3	15	27%	CASP1 CASP4 CASP5 GRIA4 ICEBERG COP1 INCA
11q22.3	11q22.3	3	27%	GRIA4 KIAA1826 KBTBD3
11q22.3	11q25	489	33%	(contains 262 genes) APOA1 ARC1 ATM BLR1 CBL CD3E CHEK1 CRYAB DDX6 DDX10 DLAT DRD2 ETS1 FLI1 H2AFX HSPA8 HSPB2 HTR3A IL10RA IL18 KCNJ5 LOH11CR2A MCAM MLL NCAM1 NNMT OPCML POU2AF1 PPP2R1B SDHD ST3GAL4 SRPR ST14 TAGLN THY1 ZBTB16 CUL5 BARX2 USP2 PCSK7 ZW10 UBE4A EI24 FEZ1 RICS HYOU1 ADAMTS8 SNF1LK2 ARHGEF12 TRIM29 CADM1 POU2F3 MIZF REXO2 TIMM8B B3GAT1 DCPS DDX25 CDON SPA17 ROBO4 RAB39 BTG4 SCN3B CRTAM TMPRSS4 PRDM10 ARHGAP20 P53AIP1 RNF26 JAM3 TBRG1 STS-1 ALKBH8 TIRAP C1QTNF5 ADAMTS15 HEPACAM ANKK1 BCL9L FOXR1 HEPN1
14q21.1	14q21.1	1	22%	-
15q11.2	15q15.1	201	24%	ACTC1 APBA2 BUB1B CHRM5 CHRNA7 GABRA5 GABRB3 GABRG3 IPW MEIS2 TRPM1 OCA2 PLCB2 RYR3 SCG5 SNRPN SRP14 THBS1 TJP1 UBE3A PAR5 HERC2P3 HERC2 SNURF AQR ARHGAP11A SLC12A6 RASGRP1 GPR176 MTMR15 GOLGA8A KIAA0574 DKFZP434L187 GREM1 TMEM85 KLF13 MTMR10 ZNF770 NOLA3 NDNL2 C15orf24 PAK6 AVEN ATP10A GJA9 PWC1 C15orf49 C15orf29 C15orf41 CHRFAM7A FAM7A3 FAM7A1 FAM7A2 ATPBD4 BMF PAR1 LOC145845 TMC05 LOC161635 OTUD7A SPRED1 PGDB4 FSIP1 AGPAT7 NUT LOC283697 LOC283701 LOC283711 LOC283713 FAM98B GOLGA8G PAR4 FLJ35695 FLJ39531 LOC440248 WHDC1L2 MGC131512 GOLGA8B EIF2AK4 FLJ32679 LOC503519 C15orf45 DKFZP686C2281 LOC644766 FLJ38596 LOC723972
15q15.1	15q15.3	89	25%	CAPN3 CKMT1B EPB42 GANC GCHFR PDIA3 ITPKA LTK MAP1A RAD51 SPINT1 TP53BP1 TYRO3 PLA2G4B SNAP23

				TGM5 HISPPD2A LCMT2 CHP OIP5 MAPKBP1 RTF1 MGA VPS39 CCNDBP1 TMEM87A RPAP1 76P EHD4 NDUFAF1 NUSAP1 SPTBN5 DLL4 INOC1 PPP1R14D CEP27 FAM82C DNAJC17 STARD9 VPS18 ZFP106 CHAC1 TMEM62 ZFYVE19 TGM7 CATSPER2 PLA2G4E ZSCAN29 TTBK2 CDAN1 STRC ADAL EXDL1 RHOV UBR1 PLA2G4F LRRC57 PLA2G4D CATSPER2P1 CKMT1A LOC645106 LOC649956
15q15.3	15q21.1	25	25%	B2M MFAP1 EIF3S1 SERF2 HYPK CTDSP12 WDR76 SPG11 ELL3 FRMD5 CASC4 LOC197135 SERINC4 LOC645212
15q21.1	15q21.1	8	25%	-
15q21.1	15q21.1	1	25%	-
15q25.1	15q25.1	1	21%	CHRNA4
16p13.3	16p13.3	1	20%	ZNF205 MGC3771
16q21	16q21	1	35%	-
16q22.1	16q22.1	1	31%	-
16q22.3	16q23.3	179	29%	CDH13 CTRB1 GCSH GLG1 HSBP1 HSD17B2 KARS MAF CHST6 PLCG2 PSMD7 GAN BCAR1 CLEC3A MPHOSPH6 CFDP1 GABARAPL2 MON1B ASCIZ MLYCD ADAT1 CHST5 WWOX BCMO1 TERF2IP RFWD3 CENPN C16orf61 KIAA1576 FA2H FLJ22167 WDR59 FLJ14327 CMIP DYNLRB2 ZNRF1 CNTNAP4 HSPC105 PKD1L2 C16orf46 CDYL2 TMEM170 LOC146346 ZFP1 ADAMTS18 LDHD MLKL LOC283922 LOC348174 LOC440348 CTRB2 LOC497190
16q24.1	16q24.2	49	27%	COX4I1 FOXF1 FOXL1 FOXC2 IRF8 SLC7A5 COX4NB ZCCHC14 KIAA0182 GINS2 KLHDC4 DKFZp43400320 JPH3 MTHFSD FBXO31 MAP1LC3B FLJ30679 LOC146513 LOC283904 FLJ34515 C16orf74 FLJ46320
16q24.2	16q24.2	1	27%	BANP
16q24.2	16q24.3	87	23%	AFG3L1 APRT C16orf3 CBFA2T3 CDH15 CYBA DPEP1 FANCA GALNS GAS8 MC1R MVD CHMP1A RPL13 SPG7 CDK10 C16orf7 FAM38A TUBB3 TCF25 CPNE7 IL17C ANKRD11 TRAPPC2L FLJ20186 BANP DBNDD1 FLJ12547 CDT1 SPIRE2 ZNF469 MGC16385 ZNF276 RNF166 SPATA2L C16orf55 NHN1 LOC146429 ZFPM1 MGC23284 FLJ12986 ZNF778 LOC197322 C16orf81 LOC283861 SNAI3 FLJ40448 LOC348180 LOC390748 LOC400553 FLJ45530 FLJ45121 LOC400558 LOC651721
17q21.2	17q21.32	214	20%	(134) ARL4D ATP6V0A1 BRCA1 FMNL1 CDC27 CNP CRHR1 DHX8 DUSP3 ETV4 EZH1 G6PC GCN5L2 CCR10 GRN HSD17B1 ITGA2B ITGB3 NBR1 MAPT ADAM11 MEOX1 MPP2 MPP3 NMT1 PPY PYY RAB5C RPL27 SLC4A1 STAT3 STAT5A STAT5B DNAJC7 UBTF WNT3 WNT9B AOC3 BECN1 MAP3K14 HDAC5 GJA7 LGP2 GHDC HSPB9 PLCD3
22q13.1	22q13.1	2	20%	APOBEC3B
Xp22.33	Xp22.33	13	22%	ARSD ARSE ARSF PRKX GYG2 MXRA5 ARSH
Xp22.33	Xp22.2	113	29%	AMELX SHROOM2 ARHGAP6 STS CLCN4 GPM6B HCCS KAL1 MID1 GPR143 PRPS2 TRAPPC2 TBL1X TMSB4X TMSL3 HDHD1A PNPLA4 OFD1 RAB9A FRMPD4 MSL3L1 EGFL6 VCX TLR7 TLR8 VCX2 VCX3A WWC3 NLGN4X ATXN3L MGC17403 FAM9A FAM9B FAM9C LOC349408 VCX-C LOC645769
Xp22.13	Xp22.13	1	26%	-
Xp22.13	Xp22.13	21	26%	NHS PPEF1 RS1 SCML1 CDKL5 SCML2 RAI2 CXorf20

Supplementary Table 4. Genes whose DNA copy number correlates with mRNA expression

Cyto.Band	Frequency of copy-number anomaly (n)			Comparison	Best.FDR (adj.p)	Gene.Symbol
	LOSS (L)	NORMAL (N)	GAIN (G)			
chr17q23.1	5	69	29	G vs N	0	MIRN21 /// TMEM49
chr17q23.1	5	69	29	G vs N	0	DHX40
chr17q23.3	4	68	31	G vs N	0	DDX42
chr17q11-qter	5	69	29	G vs N	0	CLTC
chr11q23.1-q23.2	33	68	2	L vs N	0	RBM7
chr17q21.3-q22	7	73	23	G vs N	0	XYLT2
chr17p11.2 /// chr17q23.1	5	69	29	G vs N	0	LOC729334 /// LOC731896 /// RPS6KB1
chr16p13.3	4	80	19	G vs N	0	USP7
chr17q23.2	6	69	28	G vs N	0	TRIM37
chr17q23.1	6	69	28	G vs N	0	HEATR6
chr17q23-q25	4	68	31	G vs N	0	PSMC5
chr17q21-q23	6	69	28	G vs N	0	APPBP2
chr17q22-q23	5	70	28	G vs N	0	MED13
chr17q11-qter	4	69	30	G vs N	1,00E-06	CYB561
chr17q11.2-q12 17q21.1	10	71	22	G vs N	1,00E-06	ERBB2
chr17q12	10	71	22	G vs N	1,00E-06	PERLD1
chr17q21.33	7	72	24	G vs N	1,00E-06	EPN3
chr17q23.3	4	69	30	G vs N	1,00E-06	CCDC44
chr8p21.1	47	52	4	L vs N	1,00E-06	INTS9
chr17q23.1	5	69	29	G vs N	1,00E-06	PTRH2
chr17q24.2	4	69	30	G vs N	1,00E-06	AMZ2
chr1q22	0	49	54	G vs N	1,00E-06	SLC25A44
chr17q21.33	8	73	22	G vs N	1,00E-06	SLC35B1
chr17q21.3	7	75	21	G vs N	1,00E-06	NME1
chr8q24.3	2	50	51	G vs N	2,00E-06	GPAA1
chr17q24.2	4	68	31	G vs N	2,00E-06	NOL11
chr17q21	7	74	22	G vs N	2,00E-06	TOB1
chr20q13.31	1	75	27	G vs N	3,00E-06	RAE1
chr17q21.33	7	72	24	G vs N	3,00E-06	SPATA20
chr17q23.2	9	74	20	G vs N	3,00E-06	TOM1L1
chr8q23	2	51	50	G vs N	4,00E-06	EBAG9
chr17q23	5	71	27	G vs N	5,00E-06	TLK2
chr17q22-q23	7	73	23	G vs N	5,00E-06	MTMR4
chr17q21	9	70	24	G vs N	5,00E-06	PHB
chr17q21-q23	7	72	24	G vs N	5,00E-06	SUPT4H1
chr15q15-q21	26	75	2	L vs N	6,00E-06	MFAP1
chr1p36.13-q31.3	0	50	53	G vs N	6,00E-06	APH1A
chr17q21.33	7	74	22	G vs N	6,00E-06	SPAG9

chr17q24.2	4	69	30	G vs N	6,00E-06	PSMD12
chr17q24.3	4	68	31	G vs N	6,00E-06	BPTF
chr17q25	6	70	27	G vs N	6,00E-06	MRPS7
chr17q22	9	76	18	G vs N	6,00E-06	VEZF1
chr8q12.1	3	60	40	G vs N	8,00E-06	RAB2A
chr17q24.2	4	68	31	G vs N	9,00E-06	KPNA2
chr8p22-p21.3	49	50	4	L vs N	9,00E-06	PCM1
chr17q23-q24	4	68	31	G vs N	9,00E-06	SMARCD2
chr17q21.33	7	72	24	G vs N	1,20E-05	LRRC59
chr8q24	3	50	50	G vs N	1,20E-05	ZNF7
chr17q23-q25	6	70	27	G vs N	1,30E-05	RPL38
chr11q21	26	73	4	L vs N	1,50E-05	CEP57
chr17q23.1	5	69	29	G vs N	1,60E-05	RPS6KB1
chr8p21.2	53	48	2	L vs N	1,60E-05	PPP2R2A
chr17q25.1	6	70	27	G vs N	1,60E-05	ICT1
chr17q22-q23	6	72	25	G vs N	1,60E-05	RAD51C
chr3q26.32	1	82	20	G vs N	1,70E-05	MFN1
chr16q22.1	27	71	5	L vs N	1,70E-05	SF3B3
chr13q31.1	35	62	6	L vs N	1,70E-05	C13orf7
chr17q22	5	68	30	G vs N	1,70E-05	C17orf71
chr1q21.1	1	52	50	G vs N	1,90E-05	POLR3C
chr17q24-q25 17q25.1	6	70	27	G vs N	1,90E-05	ACOX1
chr11q13	5	81	17	G vs N	1,90E-05	SAPS3
chr17q12	10	71	22	G vs N	2,00E-05	GRB7
chr10p15	5	78	20	G vs N	2,00E-05	GDI2
chr9p21	21	73	9	L vs N	2,00E-05	PLAA
chr16q13-q21	25	76	2	L vs N	2,00E-05	CIAPIN1
chr8q24.3	2	51	50	G vs N	2,30E-05	RECQL4
chr13q14.11	40	59	4	L vs N	2,30E-05	MRPS31
chr17q21.32	9	70	24	G vs N	2,30E-05	ZNF652
chr8q24.3	2	50	51	G vs N	2,50E-05	PYCRL
chr1q41	0	56	47	G vs N	2,60E-05	IARS2
chr17q23.3	4	69	30	G vs N	2,60E-05	TANC2
chr1q21.2-q21.3	0	49	54	G vs N	2,70E-05	LMNA
chr12q21.32	15	84	4	L vs N	2,70E-05	CEP290
chr1q41-q42.2	0	56	47	G vs N	2,70E-05	NVL
chr8p12	39	56	8	L vs N	2,90E-05	RBM13
chr19q13	2	86	15	G vs N	2,90E-05	SUPT5H
chr17q23.2	6	69	28	G vs N	2,90E-05	PPM1D
chr17q21	6	69	28	G vs N	2,90E-05	DDX5
chr1q41-q42	0	56	47	G vs N	3,00E-05	EPRS
chr8p12	37	59	7	L vs N	3,10E-05	C8orf41
chr3q26.33	1	82	20	G vs N	3,30E-05	ACTL6A
chr11q23.3	30	71	2	L vs N	3,60E-05	RPS25
chr1q41	0	57	46	G vs N	3,70E-05	RAB3GAP2
chr20q13.3	2	73	28	G vs N	3,80E-05	SS18L1
chr11q13.5	9	78	16	G vs N	3,90E-05	C11orf30
chr14q24.3	22	79	2	L vs N	3,90E-05	NEK9
chr17q25.1	6	72	25	G vs N	3,90E-05	NUP85
chr20q13.2	1	76	26	G vs N	3,90E-05	Kua-UEV /// UBE2V1
chr16p12	6	81	16	G vs N	4,10E-05	UBFD1
chr22q13.1	17	82	4	L vs N	4,10E-05	UNC84B
chr17q21.33	7	72	24	G vs N	4,10E-05	CROP
chr16q24	28	70	5	L vs N	4,20E-05	TAF1C
chr16q13	25	76	2	L vs N	4,20E-05	NUP93
chr11q21	23	74	6	L vs N	4,20E-05	JOSD3
chr10p15.1	5	78	20	G vs N	4,40E-05	ATP5C1
chr20q13.2-q13.3	1	76	26	G vs N	4,60E-05	AURKA
chr1p34	9	83	11	G vs N	4,80E-05	YBX1
chr17q21.33	9	73	21	G vs N	4,80E-05	SPOP

chr16q22.3	29	69	5	L vs N	4,90E-05	RFWD3
chr11q14.1	9	75	19	G vs N	5,00E-05	RSF1
chr8q13.3	1	58	44	G vs N	5,00E-05	TRAM1
chr8q11.21	7	64	32	G vs N	5,00E-05	UBE2V2
chrXq13.2	22	79	2	L vs N	5,00E-05	XIST
chr16p13.13	5	81	17	G vs N	5,20E-05	CLEC16A
chr8q21.3	3	56	44	G vs N	5,30E-05	CPNE3
chr17q21.33	7	76	20	G vs N	5,40E-05	UTP18
chr1q42.12	0	53	50	G vs N	5,40E-05	ACBD3
chr10q23.32	21	79	3	L vs N	5,60E-05	MARCH5
chr11q23.3	31	69	3	L vs N	5,70E-05	ATP5L
chr16q21	27	74	2	L vs N	5,80E-05	CSNK2A2
chr16p13.13	5	81	17	G vs N	6,00E-05	RSL1D1
chr17q12	10	75	18	G vs N	6,30E-05	PERLD1
chr1q21	0	47	56	G vs N	6,30E-05	SCAMP3
chr1p36.13-q41	2	60	41	G vs N	6,30E-05	CEP350
chr4p13	27	74	2	L vs N	6,30E-05	TMEM33
chr5p15.2	4	85	14	G vs N	6,30E-05	MARCH6
chr16q11.2	26	71	6	L vs N	6,30E-05	SHCBP1
chr3q13	2	80	21	G vs N	6,60E-05	MAGEF1
chr15q15.3	26	75	2	L vs N	6,60E-05	LCMT2
chr7p15	10	80	13	G vs N	6,70E-05	TAX1BP1
chr16q23.3	30	68	5	L vs N	6,70E-05	MPHOSPH6
chr17q23.3	4	70	29	G vs N	6,70E-05	CCDC47
chr5q22.2	24	78	1	L vs N	6,70E-05	YTHDC2
chr8q22	1	50	52	G vs N	7,00E-05	LOC730429 /// UBR5
chr8p21.3	52	49	2	L vs N	7,10E-05	ENTPD4
chr20q13.3	2	73	28	G vs N	7,10E-05	OSBPL2
chr17q23-q24	5	72	26	G vs N	7,10E-05	PRKAR1A
chr3q26.3	2	82	19	G vs N	7,30E-05	DCUN1D1
chr8q24.3	2	50	51	G vs N	7,30E-05	BOP1 /// LOC727967
chr10p15.3	5	79	19	G vs N	7,30E-05	IDI1
chr17q23.3	5	69	29	G vs N	7,30E-05	TEX2
chr13q14.3	42	57	4	L vs N	7,30E-05	DHRS12
chr1q25	1	61	41	G vs N	7,30E-05	C1orf27
chr17q24.2	7	69	27	G vs N	7,30E-05	SLC16A6
chr11q23.1-q23.2	33	68	2	L vs N	7,30E-05	REXO2
chr10p15-p14	5	80	18	G vs N	7,30E-05	GTPBP4
chr8q12	5	62	36	G vs N	7,30E-05	RPS20
chr20q13.31	1	76	26	G vs N	7,40E-05	CSTF1
chr20q13.33	1	76	26	G vs N	7,40E-05	VAPB
chr20q13.33	0	77	26	G vs N	7,70E-05	UCKL1
chr11q22	25	73	5	L vs N	7,70E-05	SFRS2B
chr3q27.1	2	78	23	G vs N	8,00E-05	ALG3
chr8q22.3	1	50	52	G vs N	8,20E-05	AZIN1
chr10p13	7	80	16	G vs N	8,20E-05	CDC123
chr16p13.12	5	81	17	G vs N	8,20E-05	MKL2
chr8q12.1	5	61	37	G vs N	8,30E-05	LOC137886
chrXp22	26	75	2	L vs N	8,40E-05	TRAPPC2
chr6p22	6	84	13	G vs N	8,90E-05	E2F3
chr1q31	0	65	38	G vs N	8,90E-05	TROVE2
chr9q21	14	86	3	L vs N	8,90E-05	ZCCHC6
chr1q21.2	1	64	38	G vs N	8,90E-05	NOTCH2NL
chr17q23.3	4	69	30	G vs N	9,20E-05	WDR68
chr1q42.3	0	55	48	G vs N	9,30E-05	TBCE
chr20q13.33	0	77	26	G vs N	9,40E-05	PRPF6
chr22q13.31	18	83	2	L vs N	9,60E-05	NUP50
chr21q22.3	4	80	19	G vs N	1,00E-04	PWP2
chr20q13.33	1	73	29	G vs N	0,000101	C20orf20
chr8q11	5	63	35	G vs N	0,000104	TGS1

chr20q13.13	1	79	23	G vs N	0,000104	DDX27
chr11p15 /// chr6q25.2	18	80	5	L vs N	0,000104	hCG_21078 /// RPL27A
chr1q21	0	49	54	G vs N	0,000104	JTB
chr16p13.3	3	84	16	G vs N	0,000105	N-PAC
chr8q24	3	52	48	G vs N	0,000105	EIF2C2
chr5p15	4	88	11	G vs N	0,000105	POLS
chr8q24.3	3	50	50	G vs N	0,000106	CYHR1
chr11q24.2	35	66	2	L vs N	0,000108	PUS3
chr1q24.1	3	50	50	G vs N	0,000108	POGK
chr11q13.1	4	82	17	G vs N	0,000109	FBXL11
chr22q13.2- q13.33	17	82	4	L vs N	0,000109	PACSIN2
chr16q24.1	28	71	4	L vs N	0,000112	KIAA1609
chr3q27.1	2	83	18	G vs N	0,000112	YEATS2
chr20q13.33	2	73	28	G vs N	0,000113	TAF4
chr5q13.3-q14	28	74	1	L vs N	0,000113	CCNH
chr17q21.1- q21.2	18	77	8	L vs N	0,000118	RPL27
chr6p22	8	81	14	G vs N	0,000118	TRIM27
chr5q12-q13	27	75	1	L vs N	0,000118	ANKRA2
chr20q13.33	1	73	29	G vs N	0,00012	C20orf11
chr11q22.1	27	72	4	L vs N	0,000121	TMEM123
chr3q26.3	1	84	18	G vs N	0,000121	PIK3CA
chr8q24.3	2	50	51	G vs N	0,000121	C8orf30A
chr16q22.1	26	74	3	L vs N	0,000124	EDC4
chr18q21.1	20	78	5	L vs N	0,000124	SMAD4
chr13q11	34	62	7	L vs N	0,000124	PARP4
chr6p22.3	6	83	14	G vs N	0,000125	DEK
chr3q25.31	3	85	15	G vs N	0,000125	SLC33A1
chr8q24.1	1	45	57	G vs N	0,000125	SQLE
chr17q11-q12	10	71	22	G vs N	0,000125	STARD3
chr3q29	4	83	16	G vs N	0,00013	NCBP2
chr17q21.1- q21.3	19	78	6	L vs N	0,000131	EZH1
chr11q22-q23	33	69	1	L vs N	0,000131	NPAT
chr8q24.3	2	49	52	G vs N	0,000135	C8orf55
chr3p24-p22	19	81	3	L vs N	0,000135	RAB5A
chr1q21	0	47	56	G vs N	0,000135	SHC1
chr1p13-p11	2	85	16	G vs N	0,000136	NOTCH2
chr8p21.3	51	49	3	L vs N	0,000141	BIN3
chr16p12.2	7	80	16	G vs N	0,000142	THUMP1
chr21q22.3	4	80	19	G vs N	0,000146	TMEM1
chr3q29	3	82	18	G vs N	0,000146	UBXD7
chr1q23-q25	0	52	51	G vs N	0,000146	COPA
chr20q13.33	0	74	29	G vs N	0,000147	ARFGAP1
chr16p11.2	2	83	18	G vs N	0,000148	CDIPT
chr16q22-q23	29	69	5	L vs N	0,000148	GLG1
chr17q21.33	7	72	24	G vs N	0,000153	RSAD1
chr15q13.2- q13.3	27	75	1	L vs N	0,000153	MTMR15
chr11p15.1-p14	20	80	3	L vs N	0,000158	GTF2H1
chr6q14	13	86	4	L vs N	0,000158	PHIP
chr3q27-qter	2	78	23	G vs N	0,000158	EIF4G1
chr17q25.1	6	71	26	G vs N	0,000158	EXOC7
chr1q41	1	53	49	G vs N	0,000159	KCTD3
chr17q25.3	5	70	28	G vs N	0,000161	CANT1
chr17q24-q25	8	68	27	G vs N	0,000164	PRPSAP1
chr22q13.1	17	83	3	L vs N	0,000164	TOM1
chr21q22.2	4	84	15	G vs N	0,000164	BRWD1
chr20q13.33	2	73	28	G vs N	0,000171	PSMA7
chr1q21	0	51	52	G vs N	0,000171	PSMB4
chr11q22	27	74	2	L vs N	0,000171	AASDHPPT
chr1q23-q25	3	57	43	G vs N	0,000174	PIGC

chr8q13	1	61	41	G vs N	0,000174	ARFGEF1
chr7p22	5	87	11	G vs N	0,000174	NUDT1
chr1q32.1	0	55	48	G vs N	0,000174	JARID1B
chr17q21-q23	7	75	21	G vs N	0,000176	AKAP1
chr1q21	0	49	54	G vs N	0,000177	S100A10
chr17q21	16	77	10	G vs N	0,000184	JUP
---	2	60	41	G vs N	0,000188	---
chr5q13.3	26	76	1	L vs N	0,000188	AGGF1
chr10p13	9	79	15	G vs N	0,000188	DCLRE1C
chr7p22.2	7	85	11	G vs N	0,000189	EIF3B
chr3q27.1	2	82	19	G vs N	0,000192	KLHL24
chr5q12.3	25	74	4	L vs N	0,000197	SFRS12
chr8q11	6	67	30	G vs N	0,000197	PRKDC
chr8q11.2-q13	5	65	33	G vs N	0,000199	MRPL15
chr3q28	2	83	18	G vs N	0,000199	FXR1
chr8q24.3	3	61	39	G vs N	0,000203	C8orf33
chr8q22.2	1	54	48	G vs N	0,000203	STK3
chr7q11.2 /// chr7q11.23	7	83	13	G vs N	0,000203	LOC100101267 /// LOC729316 /// POM121
chr13q22 13q33	26	69	8	L vs N	0,000203	ERCC5
chr3q27.1	2	78	23	G vs N	0,000205	PSMD2
chr1q21.3	0	51	52	G vs N	0,000205	POGZ
chr17q23.2	9	76	18	G vs N	0,000205	CUEDC1
chr16q22.1	26	73	4	L vs N	0,000205	WWP2
chr8q13.1	1	61	41	G vs N	0,000205	MTFR1
chr8q11.2	6	65	32	G vs N	0,000208	MCM4
chr8q11.2	6	64	33	G vs N	0,00021	ATP6V1H
chr7cen-q22	6	84	13	G vs N	0,00021	MDH2
chr1q23	0	50	53	G vs N	0,000212	NDUFS2
chr20q13.32	1	77	25	G vs N	0,000217	ATP5E
chr10p13	8	79	16	G vs N	0,000219	PRPF18
chr3p14.1	19	82	2	L vs N	0,000219	PSMD6
chr10p13	9	79	15	G vs N	0,000219	HSPA14
---	7	83	13	G vs N	0,000224	WBSCR22
chr8q22.1	1	55	47	G vs N	0,000226	DPY19L4
chr20q13.2	1	75	27	G vs N	0,000226	PFDN4
chr1q21	0	51	52	G vs N	0,000232	SETDB1
chr1q21.2	0	51	52	G vs N	0,000232	PSMD4
chr20p11.23	11	82	10	L vs N	0,000232	SEC23B
chr8q24.23	3	50	50	G vs N	0,000232	CPSF1
chr17q21.1	19	78	6	L vs N	0,000233	MLX
chr20q13.2 /// chr3q26.31	1	76	26	G vs N	0,000239	Kua-UEV /// LOC730052 /// UBE2V1
chr17q25	6	73	24	G vs N	0,000244	ACTG1
chr17q21.2	16	77	10	G vs N	0,000244	EIF1
chr15q21.2	23	75	5	L vs N	0,000244	COPS2
chr20q13.1	1	80	22	G vs N	0,000246	STAU1
chr1q21.3	0	49	54	G vs N	0,000246	INTS3
chr12p12.3	13	83	7	L vs N	0,000252	STRAP
chr1q32.1	0	58	45	G vs N	0,000252	IPO9
chr11q14	23	74	6	L vs N	0,000252	MED17
chr6q25.1	25	69	9	L vs N	0,000252	NUP43
chr13q14	42	58	3	L vs N	0,000253	TRIM13
chr5q13.2	27	75	1	L vs N	0,000256	BTF3
chr20pter- q11.23	1	85	17	G vs N	0,000263	CDK5RAP1
chr16p13.2	5	81	17	G vs N	0,000263	EMP2
chr5q23	23	77	3	L vs N	0,000264	CSNK1G3
chr16q22.1	27	71	5	L vs N	0,000264	DDX19A
chr11q14.1	10	74	19	G vs N	0,000264	NDUFC2
chr16q22.2	27	72	4	L vs N	0,000265	NFATC3
chr16p12	5	81	17	G vs N	0,000269	RRN3

chr3q25.32	3	86	14	G vs N	0,000274	RSRC1
chr14q32.33	7	82	14	G vs N	0,000274	SIVA1
chr21q22.2	4	82	17	G vs N	0,000276	TTC3
chr8q22.1	1	54	48	G vs N	0,000278	MTDH
chr20q13.33	2	73	28	G vs N	0,000294	ADRM1
chr17q25	6	76	21	G vs N	0,000294	FO XK2
chr17q25	6	74	23	G vs N	0,000296	CSNK1D
chr1q32	1	52	50	G vs N	0,000299	CD46
chr11q25	36	66	1	L vs N	3,00E-04	THYN1
chr20q13.2	1	76	26	G vs N	3,00E-04	ZNF217
chr11q13.3-q13.5	10	78	15	L vs N	3,00E-04	RPS3
chr11q14.1	10	74	19	G vs N	3,00E-04	ALG8
chr8p21-p12	47	52	4	L vs N	0,000303	GTF2E2
chr7p13	9	83	11	G vs N	0,000306	CDC2L5
chr12q14.2 /// chr13q12-q13 /// chr8q22.2-q23	1	50	52	G vs N	0,000309	LOC341315 /// LOC652607 /// PABPC1 /// PABPC3
chr17q25.3	6	74	23	G vs N	0,000309	MGC15523
chr16p11.2	3	83	17	G vs N	0,000309	C16orf58
chr4q21.1-q21.2	16	87	0	L vs N	0,000309	HNRPD
chr7p15.2	9	80	14	G vs N	0,000309	CBX3 /// LOC653972
chr3p24.2	19	81	3	L vs N	0,000316	RPL15
chr7q11.21	5	84	14	G vs N	0,000316	C7orf42
chr22q13	18	82	3	L vs N	0,000317	SMCR7L
chr17q25	5	70	28	G vs N	0,000317	LGALS3BP
chr1q23.3	1	51	51	G vs N	0,000317	UAP1
chr13q12.11	34	63	6	L vs N	0,000318	EFHA1
chr17q25.3	6	72	25	G vs N	0,000319	EIF4A3
chr1q21.3	0	47	56	G vs N	0,00032	ADAM15
chr1q21.2	0	50	53	G vs N	0,00032	VPS45
chr1q21.3	0	48	55	G vs N	0,000321	UBE2Q1
chr1q22-q25	2	50	51	G vs N	0,000321	TMCO1
chr20q13.2	1	76	26	G vs N	0,000325	TFAP2C
chr17q25.1	6	71	26	G vs N	0,00033	SLC9A3R1
chr17q25.3	6	74	23	G vs N	0,00033	GPS1
chr16p12.3-p12.1	6	81	16	G vs N	0,00033	LCMT1
chr12p11	5	87	11	G vs N	0,00033	JARID1A
chr5q31.1	12	87	4	L vs N	0,000334	HSPA9
chr10p15-p14	5	78	20	G vs N	0,000334	KIN
chr11q14	18	78	7	L vs N	0,000335	PICALM
chr1q25	1	61	41	G vs N	0,000335	TPR
chr5q11.2-q13.1	26	76	1	L vs N	0,000336	TAF9
chr17p13	31	70	2	L vs N	0,000336	SEN P3
chr11q13.3	3	73	27	G vs N	0,000339	PPFIA1
chr1q42.11	0	56	47	G vs N	0,000341	CNIH4
chr8q24.3	2	50	51	G vs N	0,000346	HSF1
chr5q11-q12	28	74	1	L vs N	0,000347	MSH3
chr10p15.3	5	80	18	G vs N	0,000349	LARP5
chr9p21.2	21	73	9	L vs N	0,000355	IFT74
chr5q13.2	27	74	2	L vs N	0,000355	MRPS27
chr3q27	2	79	22	G vs N	0,000359	DVL3
chr5p15.2	4	84	15	G vs N	0,000359	DAP
chr19q13.11	2	87	14	G vs N	0,000359	KIAA0355
chr16p13.3	3	85	15	G vs N	0,000361	DNAJA3
chr18q12	19	79	5	L vs N	0,000361	CXXC1
chr5q21-q22	24	78	1	L vs N	0,000361	APC
chr16p13.3	3	82	18	G vs N	0,000363	STUB1
chr5q13.3-q14.1	27	74	2	L vs N	0,000371	SCAMP1
chr3q26.33	2	81	20	G vs N	0,000376	NDUFB5
chr15q23	13	82	8	L vs N	0,000378	PARP6

chr8q21	1	55	47	G vs N	0,00038	TPD52
chr8p22-p21	48	52	3	L vs N	0,000384	ATP6V1B2
chr8q22	1	55	47	G vs N	0,000387	UQCRB
chr16p11.2	2	83	18	G vs N	0,000387	STX4
chr1q21	0	51	52	G vs N	0,000387	PRUNE
chr1q21	0	51	52	G vs N	0,000387	PI4KB
chr17q24-q25	6	70	27	G vs N	0,000388	LLGL2
chr7p14.3	10	81	12	L vs N	0,000393	KIAA0241
chr22q13.1 22q13.2	17	83	3	L vs N	0,000393	ADSL
chr3q21-qter	2	79	22	G vs N	0,000393	EPHB3
chr3q27.3	2	83	18	G vs N	0,000394	TBCCD1
chr17q25.3	6	74	23	G vs N	0,000394	C17orf70
chr4p16	19	82	2	L vs N	0,000394	GAK
chr6p22.3	6	83	14	G vs N	0,000394	SOX4
chr1q23.3	3	55	45	G vs N	0,000394	BAT2D1
chr3p21.1-p14.3	18	83	2	L vs N	0,000394	APPL1
chr11q13-q14	9	76	18	G vs N	0,000395	PAK1
chrXp22.3	29	72	2	L vs N	0,000395	PNPLA4
chr3p21.1	14	85	4	L vs N	0,000408	WDR82
chr12p13.31	5	87	11	G vs N	0,000408	ING4
chr1q32.1	0	55	48	G vs N	0,00041	ZC3H11A
chr18q21.2	20	79	4	L vs N	0,00041	MEX3C
chr8q22.1	1	56	46	G vs N	0,00041	RBM35A
chr11q13.4	10	79	14	G vs N	0,000412	DKFZP586P0123
chr8q21.3-q22	1	56	46	G vs N	0,000431	RAD54B
chr8q13-q21.1	1	54	48	G vs N	0,000431	ZBTB10
chr20q13.32	1	77	25	G vs N	0,000434	STX16
chr11q13	6	81	16	G vs N	0,000435	C11orf24
chr8q22.3-q23.1	1	50	52	G vs N	0,000437	FZD6
chr15q15.3	26	75	2	L vs N	0,000437	ELL3
chr8q24.2-qter	2	50	51	G vs N	0,000437	PUF60
chr3p21.1-p14.2	18	83	2	L vs N	0,000438	PDHB
chr17q25.3	6	72	25	G vs N	0,000439	TBC1D16
chr17q22	7	72	24	G vs N	0,00044	RNF43
chr11p15.4	18	80	5	L vs N	0,000443	TMEM41B
chr8q24.3	2	50	51	G vs N	0,000444	EXOSC4
chr11q13.5-q14	9	76	18	G vs N	0,000463	CLNS1A
chr17q25.3	6	74	23	G vs N	0,000465	LOC339229
chr8q24.3	2	50	51	G vs N	0,000467	SCRIB
chr11q23.2	34	67	2	L vs N	0,000468	PPP2R1B
chr17q25.1	6	71	26	G vs N	0,000471	KCTD2
chr5q14	28	74	1	L vs N	0,000476	COX7C
chr17q21.31	20	75	8	L vs N	0,000477	DHX8
chr15q25.3	13	80	10	G vs N	0,00048	SEC11A
chr13q12.3	37	62	4	L vs N	0,00048	PDS5B
chr11q24-q24	35	66	2	L vs N	0,00048	CHEK1
chr11q14.1	10	74	19	G vs N	0,000485	C11orf67
chr16p13.1	5	81	17	G vs N	0,000489	GSPT1
chr16p12.1	6	81	16	G vs N	0,000489	COG7
chr3q28	2	79	22	G vs N	0,00049	AP2M1
chr6p22.2	7	84	12	G vs N	0,00049	GMNN
chr13q32.1	31	63	9	L vs N	0,00049	TGDS
chr15q25.2	13	80	10	G vs N	0,000495	WDR73
chr20q13.33	1	73	29	G vs N	0,000498	YTHDF1
chr16q23.1	28	71	4	L vs N	0,000498	MON1B
chr7p13	13	82	8	L vs N	0,000498	C7orf44
chr16p12.3	3	83	17	G vs N	0,000498	TCEB2
chr22q13.33	18	83	2	L vs N	0,000498	ZBED4
chr5q14.3	28	73	2	L vs N	0,000498	CETN3
chr1q42	0	52	51	G vs N	0,000501	GNPAT
chr17q11.2	16	77	10	G vs N	0,000501	UTP6

chr8q24-qter	3	52	48	G vs N	0,000502	PTK2
chr16q13	25	75	3	L vs N	0,000502	KATNB1
chr7q11.23	7	83	13	G vs N	0,000511	TBL2
chr1q21-q23	0	49	54	G vs N	0,000513	SSR2
chr16p13.3	3	84	16	G vs N	0,000516	MRPS34
chr8q24.3	2	50	51	G vs N	0,000516	GPR172A
chr8q24.3	3	50	50	G vs N	0,000516	RPL8
chr16p13.3	3	84	16	G vs N	0,000516	HN1L
chr13q12.11	34	63	6	L vs N	0,000527	SAP18
chr19q13.2	2	85	16	G vs N	0,00053	PAK4
chr17q24-q25	6	70	27	G vs N	0,000536	GRB2
chr22q13.1	16	83	4	L vs N	0,000536	CDC42EP1
chr22q13.1	17	83	3	L vs N	0,000539	EIF3D
chr7p11.2	4	87	12	G vs N	0,000546	CCT6A
chr15q15.3	26	75	2	L vs N	0,000546	HYPK
chr3p24.3	15	84	4	L vs N	0,000547	TBC1D5
chr1q22-q23	0	53	50	G vs N	0,00055	ATF6
chr15q15.1	24	75	4	L vs N	0,00056	FAM82C
chr17q12	17	77	9	L vs N	0,00056	GGNBP2
chr16q22.1	27	73	3	L vs N	0,000569	DDX28
chr8q23.1	2	51	50	G vs N	0,000578	ENY2
chr20q11.23-q12	1	82	20	G vs N	0,000579	CTNNBL1
chr10p15.3	5	79	19	G vs N	0,00058	WDR37
chr3q26.3	1	84	18	G vs N	0,000588	PRKCI
chr17q25	6	74	23	G vs N	0,000595	HGS
chr4q35.1	21	78	4	L vs N	0,000606	FLJ12716
chr16p11.2	2	83	18	G vs N	0,000606	ZNF688
chr17qter	6	74	23	G vs N	0,000612	NPLOC4
chr13q12-q14	32	66	5	L vs N	0,000612	USPL1
chr6q15	13	81	9	L vs N	0,000617	UBE2J1
chr1q23.3	0	51	52	G vs N	0,000619	SDHC
chr6q27	22	75	6	L vs N	0,000621	PSMB1
chr7q11.23	6	85	12	G vs N	0,000623	NSUN5C
chr7p15.1	10	80	13	L vs N	0,000625	DKFZp586l1420
chr11q13.5-q14.1	10	78	15	G vs N	0,000629	PLEKHB1
chr1p36.13-q31.3	0	51	52	G vs N	0,000629	BOLA1
chr1q21.2	0	51	52	G vs N	0,000629	SCNM1
chr8p23.1	48	50	5	L vs N	0,000633	TNKS
chr20q13	1	80	22	G vs N	0,000633	CSE1L
chr6p21.3	5	83	15	G vs N	0,000636	RNF8
chr1q32 /// chr20q13.2 /// chr3q26.31	1	58	44	G vs N	0,000643	Kua-UEV /// LOC730052 /// RNPEP /// TMEM189 /// UBE2V1
chr21q22.3	4	80	19	G vs N	0,000643	C21orf33
chr3p21.1-p12	19	82	2	L vs N	0,000649	ATXN7
chr10q26.3	16	85	2	L vs N	0,00065	TUBGCP2
chr1q21-q22	0	47	56	G vs N	0,000664	EFNA1
chr19q12	2	86	15	G vs N	0,000664	SAE2
chr10p15.2	5	77	21	G vs N	0,000674	PITRM1
chr13q31.2-q32.3	29	66	8	L vs N	0,000676	STK24
chr22q11.21	15	84	4	L vs N	0,00068	UBE2L3
chr16p13.3	3	85	15	G vs N	0,00068	MGRN1
chr5q11	20	79	4	L vs N	0,00068	MOCS2
chr16p12.2	7	80	16	G vs N	0,00068	EXOD1
chr5q13	26	76	1	L vs N	0,00068	RAD17
chr16p11.2	2	84	17	G vs N	0,000685	RABEP2
chr16q21	27	74	2	L vs N	0,000685	GINS3
chr16p13.1-p11.2	2	83	18	G vs N	0,000689	MVP

chr14q24.3	22	79	2	L vs N	0,000689	MLH3
chr10q23.3 /// chr9p21	19	83	1	L vs N	0,000697	LOC731292 /// PTEN /// PTENP1
chr9p22	23	70	10	L vs N	0,000697	KLHL9
chr16p13.3	3	85	15	G vs N	0,000699	HMOX2
chr21q22.1	4	87	12	G vs N	0,000712	C21orf59
chr15q15.3	26	75	2	L vs N	0,000712	SERF2
chr8q11	6	63	34	G vs N	0,000716	RB1CC1
chr5q21.1	25	77	1	L vs N	0,000722	C5orf30
chr18q12.3	14	82	7	L vs N	0,000722	PIK3C3
chr6q16.1-q16.3	17	78	8	L vs N	0,000722	MAP3K7
chr11q14.2- q22.3	17	79	7	L vs N	0,000727	EED
chr14q32.2	18	77	8	L vs N	0,000727	ATG2B
chr3q22-q24	2	90	11	G vs N	0,000727	ATR
chr8q22.3	1	50	52	G vs N	0,000736	ATP6V1C1
chr11q23.3	32	69	2	L vs N	0,000752	CEP164
chr10p13	9	82	12	G vs N	0,000753	RSU1
chr7q11.2	6	83	14	G vs N	0,000753	POR
chr17q25.1 /// chr7p11.2 /// chrXq23	6	72	25	G vs N	0,000757	LOC652489 /// LOC728825 /// SUMO2
chr1q21.3	0	48	55	G vs N	0,00076	HAX1
chr10p15	6	76	21	G vs N	0,000765	KLF6
chr15q15.1	25	73	5	L vs N	0,000765	RTF1
chr16p13.3	4	81	18	G vs N	0,000767	LUC7L
chr3p11.2	17	83	3	L vs N	0,000778	CHMP2B
chr1q21	0	51	52	G vs N	0,000782	TUFT1
chr3p21.3	14	84	5	L vs N	0,000786	RBM5
chr17p13.1	31	70	2	L vs N	0,000789	FXR2
chr1q32-q41	0	55	48	G vs N	0,000792	RABIF
chr20q13.32	1	77	25	G vs N	0,000793	NPEPL1
chr1q21.1	0	51	52	G vs N	0,000796	GPR89A /// GPR89B /// GPR89C
chr8q22	1	54	48	G vs N	0,000797	RPL30
chr16p13.3	3	83	17	G vs N	0,000797	SRRM2
chr8p21.2-p21.1	46	52	5	L vs N	0,000798	LEPROTL1
chr15q25.3-q26	14	81	8	L vs N	0,000806	CIB1
chr8p22-p21	52	49	2	L vs N	0,000816	TNFRSF10B
chr17q21	19	77	7	L vs N	0,000825	BECN1
chr14q24.3	22	80	1	L vs N	0,000831	ZNF410
chr1q22-q23	0	52	51	G vs N	0,000831	NCSTN
chr16p13.3	3	82	18	G vs N	0,000833	NARFL
chr3q23	2	89	12	G vs N	0,000836	SR140
chr7q11.23	6	85	12	G vs N	0,000836	NSUN5B
chr17p11.2-p12	26	74	3	L vs N	0,000836	PRPSAP2
chr10p13	7	79	17	G vs N	0,000839	MCM10
chr15q11-q13	22	77	4	L vs N	0,000839	UBE3A
chr5q12-q13	27	74	2	L vs N	0,000839	MCCC2
chr11q23.3 /// chr6q21	33	68	2	L vs N	0,000842	LOC442240 /// ZNF259
chr16p11.2	2	84	17	G vs N	0,000846	TUFM
chr16p12	7	80	16	G vs N	0,00085	UQCRC2
chr3p21.3	15	84	4	L vs N	0,00085	RHOA
chr6q22.1- q22.33	15	78	10	L vs N	0,000852	RNF146
chr6pter-q22.33	14	81	8	L vs N	0,000853	CYB5R4
chr20q13.33	0	74	29	G vs N	0,000857	GMEB2
chr16p12.3	7	82	14	G vs N	0,000857	MGC16824
chr16p13.3	3	84	16	G vs N	0,000857	ROGDI
chr11q23	34	67	2	L vs N	0,000857	RDX
chr15q21.2	23	75	5	L vs N	0,000859	DTWD1
chr1q32	1	58	44	G vs N	0,000859	RNPEP

chr1q23.3	0	50	53	G vs N	0,00086	UFC1
chr6q25.1-q25.3	25	69	9	L vs N	0,000863	MAP3K7IP2
chr1q21	0	51	52	G vs N	0,000863	ACP6
chr14q23.3	20	80	3	L vs N	0,000868	EIF2S1
chr16p13.11	5	82	16	G vs N	0,000872	PDXDC1
chr1p36.13 /// chr1q12-q21.2 /// chr1q21.1 /// chr1q21.2	1	64	38	G vs N	0,000874	KIAA1245 /// LOC728980 /// LOC730476 /// NBPF1 /// NBPF10 /// NBPF11 /// NBPF14 /// NBPF15 /// NBPF16 /// NBPF20 /// NBPF8 /// NBPF9
chr1q21	0	51	52	G vs N	0,00088	VPS72
chr4q32-q33	19	81	3	L vs N	0,000881	AGA
chr8q22.1	1	54	48	G vs N	0,000884	LAPTM4B
chr21q22.3	4	81	18	G vs N	0,000885	RRP1
chr1q42-q43	0	52	51	G vs N	0,000896	KCNK1
chr3p22-p21.33	12	87	4	L vs N	0,000901	GORASP1
chr18q12	13	83	7	L vs N	0,000901	ZNF271
chr1q21-q22	0	47	56	G vs N	0,00091	EFNA4
chr15q21	18	80	5	L vs N	0,000914	RNF111
chr8q13.2	1	61	41	G vs N	0,000922	CSPP1
chr11q23.3	30	71	2	L vs N	0,000923	ARCN1
chr3q27	2	83	18	G vs N	0,000932	MCCC1
chr7q11.23	7	83	13	G vs N	0,000932	BAZ1B
chr3q24	3	85	15	G vs N	0,000946	GMPS
chr8q13.2	1	60	42	G vs N	0,000959	COPS5
chr10q23.3	19	83	1	L vs N	0,000959	PTEN
chr16q24.3	28	70	5	L vs N	0,000963	KLHDC4
chr16p12	6	81	16	G vs N	0,000964	GGA2
chr5q11.2	21	78	4	L vs N	0,000967	SKIV2L2
chr16p13.3	4	84	15	G vs N	0,000976	FLJ14154
chr8q21.11	2	60	41	G vs N	0,000983	UBE2W
chr6p21.1	5	84	14	G vs N	0,000985	POLR1C
chr16p12.1-p11.2	2	83	18	G vs N	0,000985	PHKG2
chr1q32.1	0	55	48	G vs N	0,000986	NUCKS1
chr22q13.2-q13.31	16	81	6	L vs N	0,00099	NHP2L1
chr1q23.1	1	51	51	G vs N	0,00099	C1orf66
chr21q22.3	4	83	16	G vs N	0,000994	PTTG1IP
chr1p36.21	16	85	2	L vs N	0,000998	PRDM2
chr22q13.1	17	83	3	L vs N	0,001004	CSNK1E
chr17q25.3	6	77	20	G vs N	0,001004	FN3KRP
chr17p11.2	25	74	4	L vs N	0,001012	FLII
chr16q22.1	26	74	3	L vs N	0,001016	ACD
chr1q21.1	0	50	53	G vs N	0,001027	PRPF3
chr10q24.32	15	85	3	L vs N	0,001027	ACTR1A
chr17p13.3	27	73	3	L vs N	0,001027	PAFAH1B1
chr21q22.3	4	82	17	G vs N	0,001027	SUMO3
chr16p13.11-p12.3	5	83	15	G vs N	0,00103	COQ7
chr16q23.2	30	68	5	L vs N	0,00103	ASCIZ
chr1q21	0	47	56	G vs N	0,001042	GBA /// GBAP
chr6q25.1-q25.3	23	72	8	L vs N	0,001042	RBM16
chr1q21.1-q21.2	0	47	56	G vs N	0,001042	ADAR
chr1p36.13	15	85	3	L vs N	0,001055	C1orf144
chr7p15	10	80	13	G vs N	0,001062	GARS
chr18q21.1	16	82	5	L vs N	0,001062	SMAD2
chr7p22	5	87	11	G vs N	0,001062	FTSJ2

chr18q23	17	81	5	L vs N	0,001079	ATP9B
chr16p11.2	2	83	18	G vs N	0,001084	ZNF629
chr22q11.2 22q11.21	15	85	3	L vs N	0,001084	MAPK1
chr22q11.21	15	85	3	L vs N	0,001084	LOC731210 /// MICAL3
chr18q21.31	19	79	5	L vs N	0,001084	TXNL1
chr19q13.3	3	86	14	G vs N	0,001084	GYS1
chr5q12.1	26	75	2	L vs N	0,001091	CDK7
chr16q24.3	28	70	5	L vs N	0,0011	SLC7A5
chr11p15.3	18	80	5	L vs N	0,001102	TMEM9B
chr22q13.1	16	83	4	L vs N	0,001104	TRIOBP
chr10q21	13	84	6	L vs N	0,001104	DDX21
chr1q32.1	1	57	45	G vs N	0,001104	CAMSAP1L1
chr1q22	0	48	55	G vs N	0,001122	FDPS
chr20q11.23	2	82	19	G vs N	0,001122	ACTR5
chr1q24	4	51	48	G vs N	0,001125	CREG1
chr3q27	2	80	21	G vs N	0,001127	MAP3K13
chr1q41 /// chr2q31.1	0	54	49	G vs N	0,001138	H3F3A /// LOC440926
chr5q15	27	75	1	L vs N	0,001143	RIOK2
chr11q13	2	76	25	G vs N	0,001143	CTTN
chr16p13.3	3	85	15	G vs N	0,001145	FLJ14154
chr13q12-q14	41	59	3	L vs N	0,001147	TPT1
chr18p11.21	16	80	7	L vs N	0,00115	CEP76
chr5q12.3	25	74	4	L vs N	0,001159	ERBB2IP
chr19p13.2 /// chr1p36.12-p35.1 /// chr6p21.32	13	89	1	L vs N	0,001169	hCG_2003956 /// LYPLA2 /// LYPLA2P1
chr16p11.2-p11.1	2	83	18	G vs N	0,001169	RNF40
chr19q13.2	2	85	16	G vs N	0,001169	SARS2
chr11p14	20	80	3	L vs N	0,001169	HPS5
chr3q27	2	83	18	G vs N	0,001169	RFC4
chr16p13.3	3	83	17	G vs N	0,001169	NTHL1
chr13q21.2	39	61	3	L vs N	0,001174	TDRD3
chr16q21	27	74	2	L vs N	0,001174	CNOT1
chr16q12.1	25	73	5	L vs N	0,001174	DNAJA2
chr9q33.2	12	86	5	L vs N	0,00119	PSMD5
---	19	81	3	L vs N	0,00119	---
chr1p12	6	81	16	G vs N	0,001193	PHGDH
chr8p21.2	53	48	2	L vs N	0,001194	ADAM28
chr16p13.3	3	83	17	G vs N	0,001195	PDPK1
chr14q24.3	22	80	1	L vs N	0,001209	PSEN1
chr1q24.2	3	53	47	G vs N	0,001212	SCYL3
chr1q41 /// chr2q31.1 /// chr4q31.1	0	54	49	G vs N	0,001216	H3F3A /// LOC440926 /// LOC644914 /// LOC730740
chr1q25.3	2	61	40	G vs N	0,001225	MR1
chr4q31	17	84	2	L vs N	0,001232	IL15
chr1q42.13	0	54	49	G vs N	0,001242	RNF187
chr3p13	21	79	3	L vs N	0,001245	RYBP
chr1q24	3	57	43	G vs N	0,001251	C1orf9
chr1q41	0	56	47	G vs N	0,001251	MIA3
chr11p15	19	81	3	L vs N	0,001251	FANCF
chr6p21.3	5	85	13	G vs N	0,001254	KIFC1
chr14q32.12	19	79	5	L vs N	0,001254	SMEK1
chr19q13	2	85	16	G vs N	0,001254	ACTN4
chr15q22	24	76	3	L vs N	0,001254	SRP14
chr8q12.3	3	59	41	G vs N	0,001254	GGH
chr16q12	25	73	5	L vs N	0,001254	SIAH1
chr13q14.12-q14.2	42	57	4	L vs N	0,001254	INTS6

chr1p36.12-p35.1	13	89	1	L vs N	0,001255	LYPLA2
chr5q31.1	14	85	4	L vs N	0,001263	PHF15
chr21q22.3	4	81	18	G vs N	0,001263	MCM3AP
chr6p22.3	5	82	16	G vs N	0,001269	NUP153
chr22q11.22	16	85	2	L vs N	0,001283	PPM1F
chr5q22.1	24	78	1	L vs N	0,001283	SLC25A46
chr3p22.3	13	85	5	L vs N	0,001293	CLASP2
chr13q12.11	31	67	5	L vs N	0,001297	HSMPP8
chr22q13.31	18	83	2	L vs N	0,001317	C22orf9
chr6q15	15	82	6	L vs N	0,001323	ZNF292
chr6q16	14	83	6	L vs N	0,001329	RNGTT
chr4q26-q27	18	85	0	L vs N	0,001329	PHF17
chr3q26.31	2	84	17	G vs N	0,001329	FNDC3B
chr6q14-q15	16	81	6	L vs N	0,001329	SYNCRIP
chr16p12-p11.2	5	82	16	G vs N	0,001346	ARL6IP1
chr18p11.21	16	80	7	L vs N	0,00135	TNFSF5IP1
chr4p16.3	19	82	2	L vs N	0,001353	PIGG
chrXp22	26	75	2	L vs N	0,00136	OFD1
chr1q24.2	3	53	47	G vs N	0,00136	IQWD1
chr17q25.3	6	73	24	G vs N	0,001362	AZI1
chr17q21.2	16	77	10	L vs N	0,001371	EIF1
chr1p34.2	9	83	11	G vs N	0,001371	MED8
chr12p13.31 /// chr13q32.3 /// chr16p13.11 /// chr3p24.2 /// chr4p12 /// chr6p24.1 /// chr7q33	19	81	3	L vs N	0,001371	LOC646672 /// LOC653232 /// LOC728002 /// LOC728088 /// LOC728576 /// LOC730925 /// RPL15 /// tcag7.350
chr3q27.1	2	79	22	G vs N	0,001372	ABCF3
chr20q13.13	1	76	26	G vs N	0,001377	DPM1
chr21q11.2	16	78	9	L vs N	0,001377	USP25
chr4q32.3	17	81	5	L vs N	0,001377	CBR4
chr1q42.11	0	55	48	G vs N	0,001377	DEGS1
chr3q25.1-q25.2	2	85	16	G vs N	0,001377	PFN2
chr17q21-q22	10	71	22	G vs N	0,001377	PNMT
chr5q21	23	79	1	L vs N	0,001377	HSD17B4
chr16p11.2	2	83	18	G vs N	0,001377	VKORC1
chr4q21.1	13	88	2	L vs N	0,001377	G3BP2
chr3q26.1-q26.2	1	86	16	G vs N	0,001397	ECT2
chr11q24.2	33	68	2	L vs N	0,001399	DCPS
chr6q16.3	16	77	10	L vs N	0,001399	SFRS18
chr8q12.3	3	59	41	G vs N	0,001399	YTHDF3
chr16q12.1	26	73	4	L vs N	0,001399	N4BP1
chr18p11.21	16	80	7	L vs N	0,001412	CHMP1B
chr19q13.2	2	85	16	G vs N	0,001415	EIF3K
chr3p21.31	13	86	4	L vs N	0,00142	APEH
chr20q13.33	2	73	28	G vs N	0,001434	LSM14B
chr20q11.22	1	81	21	G vs N	0,001464	CPNE1
chr12p13-p12.2	5	86	12	G vs N	0,001464	RAD52
chr13q12	32	66	5	L vs N	0,001464	HMGB1
chr11q22	33	68	2	L vs N	0,001468	FDX1
chr11q23.1	34	67	2	L vs N	0,001507	POU2AF1
chr11q13.4	10	78	15	G vs N	0,001526	KIAA0280
chr1q41	1	53	49	G vs N	0,001538	RPS6KC1
chr5q15	28	74	1	L vs N	0,001542	KIAA0372
chr3q25.33	4	84	15	G vs N	0,001548	KPNA4
chr11q22	26	73	4	L vs N	0,001549	MTMR2
chr8q23.1	2	51	50	G vs N	0,001553	TTC35
chr1p34	9	82	12	G vs N	0,001556	DPH2
chr14q24.3	22	80	1	L vs N	0,001556	ABCD4
chr11q13.1-	4	81	18	G vs N	0,001556	RAD9A

q13.2						
chr3p21.31	15	86	2	L vs N	0,001564	SETD2
chr11q22-q23	34	67	2	L vs N	0,001564	CRTAM
chr8p21.3	50	50	3	L vs N	0,001571	NUDT18
chr10q26.3	21	79	3	L vs N	0,001571	PPP2R2D
chr11q14.1	18	77	8	L vs N	0,001571	TMEM126B
chr11q23.1-q23.3	30	71	2	L vs N	0,001584	HYOU1
chr18p11.22	16	80	7	L vs N	0,001589	ANKRD12
chr12q24	13	85	5	L vs N	0,001589	MVK
chr19q13.1	2	86	15	G vs N	0,001603	RPS16
chr16q23-q24	29	69	5	L vs N	0,001604	KARS
chr12q21.1	15	82	6	L vs N	0,001605	TBC1D15
chr3p22.3	13	84	6	L vs N	0,001612	CMTM6
chr22q11.23	15	85	3	L vs N	0,001612	SPECC1L
chr1q42.1	0	52	51	G vs N	0,001614	TSNAX
chr11q13.3	2	75	26	G vs N	0,001614	PPFIA1
chr8q24	3	53	47	G vs N	0,001614	ZNF16
chr14q23	21	80	2	L vs N	0,001618	MAX
chr16p11.2	2	83	18	G vs N	0,001637	CD2BP2
chr1q42.13	0	50	53	G vs N	0,001637	C1orf35
chr17q25	6	70	27	G vs N	0,001655	WBP2
chr11q14.2	17	79	7	L vs N	0,001662	C11orf73
chr6q14.3	14	81	8	L vs N	0,001662	KIAA1009
chr1p36.22	16	85	2	L vs N	0,001662	MFN2
chr16q21	28	73	2	L vs N	0,001665	CKLF
chr10q25 /// chrXq25	19	81	3	L vs N	0,001665	FAM45A /// FAM45B /// LOC731832
chr5p15.2	4	85	14	G vs N	0,001669	CCT5
chr17q25.1	6	72	25	G vs N	0,001681	HN1
chr8q24.22	1	50	52	G vs N	0,001696	PHF20L1
chr1q43	0	55	48	G vs N	0,001696	GGPS1
chr22q13.1	18	82	3	L vs N	0,001696	ATF4
chr7q31.1-q31.33	5	86	12	G vs N	0,001699	LANCL2
chr1q31-q42	0	52	51	G vs N	0,001703	PSEN2
chr6q27	23	73	7	L vs N	0,001706	PHF10
chr15q14	25	74	4	L vs N	0,001711	C15orf24
chr6p21-p12	5	84	14	G vs N	0,001711	GTPBP2
chr1p36.13-q41	0	54	49	G vs N	0,001711	CYB5R1
chr4q22.1	18	85	0	L vs N	0,001725	HSD17B11
chr5p13.2	6	86	11	G vs N	0,001731	NIPBL
chr3q27.1	2	81	20	G vs N	0,001733	EIF2B5
chr5q21-q22	24	78	1	L vs N	0,001735	MAN2A1
chr4p16.3	17	85	1	L vs N	0,001735	MXD4
chr20q11.2	1	84	18	G vs N	0,001735	GSS
chr1q21	0	49	54	G vs N	0,001738	S100A13
chr11q24.3	34	67	2	L vs N	0,001741	SRPR
chr16p13-p12	7	80	16	G vs N	0,00175	METTL9
chr1q23	0	50	53	G vs N	0,00175	CCT3
chr13q32.3	29	66	8	L vs N	0,001755	DOCK9
chr19q13.11	2	87	14	G vs N	0,001755	LSM14A
chr1p36.2-p36.1	15	86	2	L vs N	0,001756	RERE
chr16p13.3	3	85	15	G vs N	0,001775	CREBBP
chr11q13.3	2	74	27	G vs N	0,001778	FADD
chr3q29	2	85	16	G vs N	0,001778	ATP13A3
chr15q15	25	74	4	L vs N	0,001778	SQRDL
chr14q11.2-q21	12	81	10	G vs N	0,001779	MAP4K5
chr17q24-q25	6	70	27	G vs N	0,001787	FDXR
chr8q13.3	1	60	42	G vs N	0,001787	NCOA2
chr17q11.2	18	78	7	L vs N	0,001791	STAT5A
---	16	84	3	L vs N	0,001805	CECR5

chr16q13	3	84	16	G vs N	0,001805	NME3
chr5q14.1	27	74	2	L vs N	0,001808	SSBP2
chr22q12.1	16	85	2	L vs N	0,001817	TFIP11
chr1p36.21	16	85	2	L vs N	0,001817	KIAA1026
chr16p12.1	7	80	16	G vs N	0,001847	POLR3E
chr15q21-q22	19	80	4	L vs N	0,001851	PIGB
chr19q13.12	2	86	15	G vs N	0,001851	ZNF573
chr10q26	20	80	3	L vs N	0,001851	EIF3A
chr11q22	26	73	4	L vs N	0,001851	BIRC2
chr16q22.3	28	70	5	L vs N	0,001859	KIAA0174
chr20q13.33	0	74	29	G vs N	0,001864	C20orf149
chr16p13.3	3	85	15	G vs N	0,001864	CLUAP1
chr14q24.3	22	80	1	L vs N	0,001866	YLPM1
chr1q32	1	55	47	G vs N	0,001866	HHAT
chr20q13.13	1	76	26	G vs N	0,001869	MOCS3
chr20q12-q13.12	2	83	18	G vs N	0,001869	PIGT
chr15q15.2	27	73	3	L vs N	0,001877	TMEM62
chr1q24.2	3	53	47	G vs N	0,001888	C1orf156
chr1q22	0	49	54	G vs N	0,001889	YY1AP1
chr17q11.2	18	79	6	L vs N	0,00191	STAT5B
chr16p13.3	3	83	17	G vs N	0,00191	MPG
chr4q21-q25	18	83	2	L vs N	0,001923	ADH5
chr4p14	27	75	1	L vs N	0,001935	LIAS
chr18q23	15	84	4	L vs N	0,001935	ADNP2
chr1q32	1	54	48	G vs N	0,001956	LPGAT1
chr1q25.1	3	57	43	G vs N	0,001959	PRDX6
chrXp22.32	30	70	3	L vs N	0,001962	HDHD1A
chr16p12.1	6	81	16	G vs N	0,001965	NDUFAB1
chr3p21.3	13	88	2	L vs N	0,001983	SACM1L
chr1pter-q31.3	15	87	1	L vs N	0,00199	ZBTB40
chr16p13.3	3	82	18	G vs N	0,001996	C16orf24
chr1q21.2-q21.3	0	51	52	G vs N	0,001996	F11R
chr14q24.3	23	79	1	L vs N	0,001996	SNW1
chr17q25.3	6	73	24	G vs N	0,001996	CHMP6
chr7q11.23	7	83	13	G vs N	0,001996	ABHD11
chr17q21.31	20	74	9	L vs N	0,002002	LSM12
chr16q24.1	30	68	5	L vs N	0,002006	PLCG2
chr9q22.31	14	84	5	L vs N	0,002008	NOL8
chr6p21.1	6	84	13	G vs N	0,002009	UBR2
chr1q23	2	50	51	G vs N	0,00202	MGST3
chr15q15-q21	26	75	2	L vs N	0,00202	TP53BP1
chr6q24.2	24	69	10	L vs N	0,002043	SF3B5
chr11q22.2-q22.3	33	68	2	L vs N	0,002043	IL18
chr20q13.31	1	76	26	G vs N	0,002043	C20orf43
chr15q15.1	27	73	3	L vs N	0,002055	ZFP106
chr1p34.1	9	83	11	G vs N	0,002073	CDC20
chr4q35.1	21	78	4	L vs N	0,002087	CDKN2AIP
chr22q13.1	17	83	3	L vs N	0,002134	DDX17
chr21q22.1-q22.2 21q22.11	3	86	14	G vs N	0,002138	SON
chr16p13.3	3	85	15	G vs N	0,00215	TRAP1
chr22q13	16	82	5	L vs N	0,002157	SREBF2
chr3q27.1	2	78	23	G vs N	0,002162	FAM131A
chr11q22-q23	31	70	2	L vs N	0,002162	CUL5
chr10q26	21	79	3	L vs N	0,002162	GLRX3
chr8q21.13	1	58	44	G vs N	0,002192	SNX16
chr17q24.2	4	69	30	G vs N	0,0022	HELZ
chr12p13.3	5	84	14	G vs N	0,002206	TULP3
chr16q24.3	24	73	6	L vs N	0,002209	DEF8
chr6q16.1-q16.3	16	78	9	L vs N	0,002226	ASCC3
chr22q13.1	16	83	4	L vs N	0,002237	POLR2F

chr17q25.1	6	71	26	G vs N	0,002242	SAP30BP
chr15q21.2	23	74	6	L vs N	0,002251	SLC27A2
chr1p36.3-p36.2	16	84	3	L vs N	0,002251	RPL22
chr3p21.3	14	85	4	L vs N	0,002268	CYB561D2
chr6p22.3-p22.1	7	84	12	G vs N	0,002268	MRS2L
chr6pter-p24.1	5	84	14	G vs N	0,002268	MTCH1
chr3p21.33	12	87	4	L vs N	0,002268	WDR48
chr13q14.11	39	60	4	L vs N	0,002307	RP11-125A7.3
chr19q13.1	2	85	16	G vs N	0,002325	NFKB1B
chr13q14.2	41	59	3	L vs N	0,002335	MED4
chr7q11.23	7	83	13	G vs N	0,002335	EIF4H
chr8q24.3	2	50	51	G vs N	0,002335	CYC1
chr15q13.1	25	74	4	L vs N	0,002347	AVEN
chr3q27.2	2	82	19	G vs N	0,002347	SENP2
chr8q24.11-q24.13	3	43	57	G vs N	0,002348	EXT1
chr15q15.1	28	72	3	L vs N	0,002348	SNAP23
chr3p14.3	18	83	2	L vs N	0,002367	C3orf63
chr16p13.3	3	83	17	G vs N	0,002368	RHBDF1
chr1q32.2-q32.3	1	54	48	G vs N	0,002372	RCOR3
chr14q31-q32	19	78	6	L vs N	0,00238	TRIP11
chr20q12-q13.1	1	82	20	G vs N	0,002396	RPN2
chr7q11.21	5	84	14	G vs N	0,002396	RABGEF1
chr1q21.2	0	50	53	G vs N	0,002396	GOLPH3L
chr7q22.1	7	83	13	G vs N	0,002396	PMS2L1
chr6q24.2	24	69	10	G vs N	0,002396	SF3B5
chr16q13	25	76	2	L vs N	0,002421	DOK4
chr8q24.3	3	50	50	G vs N	0,002421	LRRRC14
chr8p12	46	52	5	L vs N	0,002445	TMEM66
chr8q12-q13	4	60	39	G vs N	0,002445	NSMAF
chr8p21.2	52	49	2	L vs N	0,002452	SLC25A37
chr16q24.1	29	69	5	L vs N	0,002452	COTL1
chr10p12.2	10	81	12	L vs N	0,002458	PIP4K2A
chr8p23.1	49	49	5	L vs N	0,002461	AGPAT5
chr1p36.1	15	87	1	L vs N	0,002461	CAPZB
chr22q13.31	17	84	2	L vs N	0,002471	DIP
chr16p13.3	4	83	16	G vs N	0,002471	ZNF263
chr20q12-q13.1	2	83	18	G vs N	0,002471	SFRS6
chr17q25	7	73	23	G vs N	0,002487	ASPCR1
chr8q22.1	1	55	47	G vs N	0,002487	CCNE2
chr11q14	10	79	14	G vs N	0,002488	POLD3
chr11q13.4	10	79	14	G vs N	0,002488	SPCS2
chr3q23	2	90	11	G vs N	0,002497	TFDP2
chr15q15	27	74	2	L vs N	0,002497	CKMT1A /// CKMT1B
chr3q22-q24	2	90	11	G vs N	0,002497	RNF7
chr16p13.3	3	82	18	G vs N	0,002499	RHOT2
chr5q22	24	78	1	L vs N	0,002506	DMXL1
chr14q	15	78	10	L vs N	0,00253	YY1
chr18p11.31	14	83	6	L vs N	0,002533	MRCL3 /// MRLC2
chr11q13.1	4	81	18	G vs N	0,002539	FBXL11
chr5q13.3	27	74	2	L vs N	0,002554	COL4A3BP
chr17p11.2	28	71	4	L vs N	0,002566	M-RIP
chr7p14.3	10	81	12	G vs N	0,002569	KIAA0241
chr3q26.32	1	85	17	G vs N	0,002572	TBL1XR1
chr8q22.1	1	55	47	G vs N	0,002572	INTS8
chr5p15.3-p15.2	4	88	11	G vs N	0,002579	FASTKD3
chr16q22	28	70	5	L vs N	0,002585	ZNF19 /// ZNF23
chr17q22 /// chr6p23-p22	9	74	20	G vs N	0,00259	COX11 /// COX11P
chr16q23.2	30	68	5	L vs N	0,002597	CENPN
chr16p13.3	3	84	16	G vs N	0,002607	UBN1
chr1q23.3	0	50	53	G vs N	0,002608	PFDN2

chr1q42.11	0	55	48	G vs N	0,002608	FBXO28
chr4q35.1	19	80	4	L vs N	0,002613	DCTD
chr17q21	18	77	8	L vs N	0,002613	GOSR2
chr1q21-q22	0	49	54	G vs N	0,002637	DAP3
chr15q11.2	21	78	4	L vs N	0,002638	NIPA2
chr7p22.3	3	89	11	G vs N	0,002653	HEATR2
chr5q21.1	25	77	1	L vs N	0,002658	HISPPD1
chr1q42.11	0	56	47	G vs N	0,002658	WDR26
chr22q13.1	16	83	4	L vs N	0,002658	NOL12 /// TRIOBP
chr16q22.1	27	71	5	L vs N	0,002658	DDX19A /// DDX19B
chr11q12.1	11	88	4	L vs N	0,002658	FAM111A
chr17q11.2-q12	17	78	8	L vs N	0,00266	LIG3
chr1p31	13	87	3	L vs N	0,002666	SFRS11
chr1p34.2	9	83	11	G vs N	0,002671	C1orf50
chr14q11.2	11	83	9	L vs N	0,002671	TOX4
chr4q21.22	17	86	0	L vs N	0,002671	PLAC8
chr20q11.23	1	81	21	G vs N	0,002674	C20orf24
chr1p	13	88	2	L vs N	0,002677	RPS6KA1
chr11q13.3-q23.3	22	75	6	L vs N	0,00271	C11orf75
chr16p13.3	3	83	17	G vs N	0,002714	HAGH
chr6q23.3	21	72	10	L vs N	0,002714	CITED2
chr15q11.2-q21.3	25	73	5	L vs N	0,002714	NDUFAB1
chr6pter-p12.1	5	84	14	G vs N	0,002722	ZNF318
chr21q22.3	4	84	15	G vs N	0,002733	WRB
chr9q21.33	13	87	3	L vs N	0,002733	AGTPBP1
chr13q14	41	59	3	L vs N	0,002733	NUFIP1
chr17q25	5	70	28	G vs N	0,002735	BIRC5
chr7q11.23	7	83	13	G vs N	0,002736	RFC2
chr1q21.3	0	47	56	G vs N	0,002736	FLAD1
chr15q15.2	28	72	3	L vs N	0,002736	TTBK2
chr20p11.2	10	80	13	L vs N	0,002761	CRNKL1
chr8q24.3	2	50	51	G vs N	0,002761	ZC3H3
chr17p13.2	28	71	4	L vs N	0,002762	ZZEF1
chr1q42.13	0	52	51	G vs N	0,002795	HIST3H2A
chr3q26.1	4	84	15	G vs N	0,0028	SMC4
chr16q24.3 17p11.2	24	73	6	L vs N	0,0028	RPL13
chr3q25.1	2	85	16	G vs N	0,0028	TSC22D2
chr20q13.33	0	85	18	G vs N	0,002805	PCMTD2
chr1q21.2	0	50	53	G vs N	0,002823	ENSA
chr16q24.1	27	70	6	L vs N	0,002823	MTHFSD
chr20q13.3	1	73	29	G vs N	0,002823	OGFR
chr1q21-q22	0	50	53	G vs N	0,002823	NIT1
chr18p11.22-p11.23	16	81	6	L vs N	0,002825	RNMT
chr1p36.12	15	87	1	L vs N	0,002825	USP48
chr15q14-q15	23	76	4	L vs N	0,002847	IVD
chr22q12	17	82	4	L vs N	0,002858	C22orf28
chrXp11.2	21	78	4	L vs N	0,002867	UTX
chr20q13.3	0	75	28	G vs N	0,002874	ZGPAT
chr5q23	24	77	2	L vs N	0,002875	SNX2
---	1	76	26	G vs N	0,002904	---
chrXq26.3	18	81	4	L vs N	0,002912	ZNF75
chr16q22-q23	26	73	4	L vs N	0,002913	SNTB2
chr22q13.1	17	83	3	L vs N	0,002914	MCM5
chr17q21	19	77	7	L vs N	0,002927	PSME3
chr17q24.2	4	72	27	G vs N	0,002934	WIP1
chr13q32.2	29	66	8	L vs N	0,002961	RANBP5
chr8q22	1	54	48	G vs N	0,002961	HRSP12
chr9q12	16	78	9	L vs N	0,002961	GRHPR

chr20pter-q12	1	82	20	G vs N	0,002961	C20orf4
chr20q11.23	1	82	20	G vs N	0,002961	KIAA0406
chr1q21.1	1	64	38	G vs N	0,00298	LOC728980 /// NBPF10 /// NBPF11 /// NBPF15 /// NBPF16 /// NBPF20 /// NBPF8
chr1p13.3	14	87	2	L vs N	0,00298	STXBP3
chr13q14.1-q14.2	41	59	3	L vs N	0,002986	ESD
chr17p13.3 /// chr1q23.3	0	51	52	G vs N	0,002986	hCG_1776980 /// SDHC
chr1p36.11	12	89	2	L vs N	0,002988	CCDC21
chr18q21.33	18	79	6	L vs N	0,002996	PIGN
chr6q15	14	79	10	L vs N	0,00301	PNRC1
chr8p12	47	53	3	L vs N	0,00301	PPP2CB
chr11p15.4	18	80	5	L vs N	0,003021	RAB6IP1
chr22q13.31	17	81	5	L vs N	0,003021	TSPO
chr8q21.1	2	58	43	G vs N	0,003028	PXMP3
chr6q22.31	15	80	8	L vs N	0,003032	MCM9
chr11q21	21	76	6	L vs N	0,003037	MRE11A
chr3p21.2-p21.3	15	85	3	L vs N	0,003059	ARIH2
chr9p21	22	72	9	L vs N	0,003062	KIAA1797
chr8p12-p11	43	53	7	L vs N	0,003072	DCTN6
chr8q12.1	3	60	40	G vs N	0,003073	ASPH
chr8q22.2	1	51	51	G vs N	0,003079	POLR2K
chr17q21.31	21	74	8	L vs N	0,003079	NMT1
chr19q13.1	2	85	16	G vs N	0,003079	ECH1
chr17q11.2	16	77	10	G vs N	0,00308	NF1
chr3p14	21	80	2	L vs N	0,00309	ARL6IP5
chr22q12.2	14	84	5	L vs N	0,003099	THOC5
chr20q11.1-q11.23	1	81	21	G vs N	0,003102	SCAND1
chr1p35-p33	9	83	11	G vs N	0,003103	EBNA1BP2
chr12p13.3	5	86	12	G vs N	0,003103	WNK1
chr22q13.2-q13.31	16	81	6	L vs N	0,003129	XRCC6
chr1q24.2 /// chr7q11.21	4	52	47	G vs N	0,003129	LOC644387 /// MPZL1
chr14q32.32 14q32.32	7	82	14	G vs N	0,003129	AKT1
chr5q13.3	28	74	1	L vs N	0,003135	RASA1
chr11q24.1-q24.3	36	66	1	L vs N	0,003149	FLI1
chr17q21.31	21	74	8	L vs N	0,00315	HEXIM1
chr1q32.1	0	59	44	G vs N	0,003159	ZNF281
chr8p21	51	49	3	L vs N	0,003162	XPO7
chr14q24.3	22	79	2	L vs N	0,003167	EIF2B2
chr6p21.1	5	85	13	G vs N	0,003169	KLHDC3
chr5q11.1	20	79	4	L vs N	0,003176	NDUFS4
chr1q21.1	1	51	51	G vs N	0,00318	PRCC
chr5q23.1	24	78	1	L vs N	0,003181	COMMD10
chr15q22.31	14	83	6	L vs N	0,00319	ZNF609
chr16p13.3	3	83	17	G vs N	0,003191	ABCA3
chr10p15	5	78	20	G vs N	0,003203	NET1
chr8p11.1	7	69	27	G vs N	0,003203	HGSNAT
chr8q24.13	3	44	56	G vs N	0,003208	C8orf32
chr5p15	3	84	16	G vs N	0,003213	SLC12A7
chr6q27	25	72	6	L vs N	0,003221	RNASET2
chr1p35.1	11	87	5	L vs N	0,003229	TMEM39B
chr12q24.11	13	84	6	L vs N	0,00323	UBE3B
chr15q14	26	75	2	L vs N	0,003234	SPG11
chr15q15.1	24	75	4	L vs N	0,003238	DNAJC17
chr6p21.3	5	85	13	G vs N	0,00324	RING1

chr8q22.1-q22.3	4	43	56	G vs N	0,00324	MRPL13
chr13q12-q13	37	62	4	L vs N	0,003247	PFAAP5
chr9q21.32	12	88	3	L vs N	0,003265	TLE1
chr19q13.1	3	88	12	G vs N	0,003265	ZNF146
chr22q13.31	16	83	4	L vs N	0,003282	GGA1
chr20q11.1-q11.23	1	85	17	G vs N	0,003286	MAPRE1
chr8q13.1	1	60	42	G vs N	0,0033	MTFR1
chr5q32	11	88	4	L vs N	0,003309	YIPF5
chr16q24.2	28	70	5	L vs N	0,003339	ZCCHC14
chr8q24.3	2	50	51	G vs N	0,003339	ZNF696
chr14q32.2	17	77	9	L vs N	0,003341	SETD3
chr14q24.3-q31	22	80	1	L vs N	0,00335	C14orf133
chr14q32.12	19	78	6	L vs N	0,003352	NDUFB1
chr7q21.1-q22	7	85	11	G vs N	0,003357	BET1
chr1q12	0	54	49	G vs N	0,003376	CHD1L
chr13q12.3	33	65	5	L vs N	0,003409	HSPH1
chr11p15.4	19	82	2	L vs N	0,003409	PPFIBP2
chr7p22.3	4	88	11	G vs N	0,003412	UNC84A
---	0	51	52	G vs N	0,003412	MRPL9
chr16q23	29	69	5	L vs N	0,003414	AP1G1
chr4q33	17	83	3	L vs N	0,003426	CLCN3
chr6p21.1	5	84	14	G vs N	0,003428	C6orf108
chr1q32.1	0	54	49	G vs N	0,00343	RIPK5
chr16p13.3	2	87	14	G vs N	0,003461	POLR3K
chr17q25.1	6	70	27	G vs N	0,003471	TMEM104
chr11q23.2	33	68	2	L vs N	0,003482	ZW10
chr22q13.2-q13.31	17	81	5	L vs N	0,003485	CTA-126B4.3
chr21q22.3	4	81	18	G vs N	0,003499	PDXK
chr10p13	9	79	15	G vs N	0,00351	NMT2
chr12q24.11	13	84	6	L vs N	0,003511	ACACB
chr22q11 22q11.21	13	84	6	L vs N	0,003511	CRKL
chr3p24.1	17	80	6	L vs N	0,003511	AZI2
chr7p14.3-p14.1	10	82	11	G vs N	0,003511	sept-07
chr11p15.4-p15.1	21	81	1	L vs N	0,003511	SMPD1
chr1q42.11	0	52	51	G vs N	0,003526	CDC42BPA
chr16p11.2	2	83	18	G vs N	0,003536	NFATC2IP
chr12q21	16	85	2	L vs N	0,003538	LOC552889
chr11q23.3	33	68	2	L vs N	0,003538	KIAA0999
chr1p36.13	16	86	1	L vs N	0,003538	ARHGEF10L
chr8p22-q22.3	1	58	44	G vs N	0,003557	LACTB2
chr6p21.32	13	89	1	L vs N	0,003564	LYPLA2P1
chr1q42	0	50	53	G vs N	0,003574	ARF1
---	4	80	19	G vs N	0,003574	---
chr1p31.1	14	85	4	L vs N	0,003577	ZZZ3
chr22q11.2	13	82	8	L vs N	0,003577	MED15
chr15q24-q25	13	82	8	L vs N	0,003577	AKAP13
chr14q32.12	19	79	5	L vs N	0,003577	C14orf159
chr12q24.11	14	85	4	L vs N	0,003577	KIAA1033
chr1p34.1	9	83	11	G vs N	0,003589	JMJD2A
chr22q12.2	15	82	6	L vs N	0,003596	DRG1
chr1q22	0	49	54	G vs N	0,003596	RAB25
chr7q21.2	5	85	13	G vs N	0,003599	PEX1
chr3p22-p21.2	13	85	5	L vs N	0,003599	RPL14
chr14q11.2	10	82	11	L vs N	0,0036	NFATC4
chr20q11.22	1	83	19	G vs N	0,003603	EDEM2
chr3q29	4	83	16	G vs N	0,003603	PAK2
chr3q28	2	78	23	G vs N	0,00362	POLR2H
chr1q23.2	3	53	47	G vs N	0,003621	TIPRL
chr13q14.3	42	58	3	L vs N	0,003621	KPNA3
chr1p22.1-p21.3	12	88	3	L vs N	0,003624	PTBP2

chr21q22.3	4	81	18	G vs N	0,003627	LSS
---	18	77	8	L vs N	0,003627	---
chr5q22.2	24	78	1	L vs N	0,00363	DCP2
chr14q31.3	20	80	3	L vs N	0,00363	ZC3H14
chrXq13.1	18	82	3	L vs N	0,003639	RPS4X
chr16q11	25	73	5	L vs N	0,003666	NETO2
chr22q12.2	15	83	5	L vs N	0,003698	MTMR3
chr22q11.21	15	83	5	L vs N	0,003698	LOC727996 /// LOC728216 /// LOC728438 /// USP18
chr8q24.12	3	44	56	G vs N	0,003729	TAF2
chr11q13.2-q13.5	3	82	18	G vs N	0,003729	DHCR7
chr22q13	17	83	3	L vs N	0,003729	RPL3
chr17p11.2	22	77	4	L vs N	0,00375	ALDH3A2
chr6q14.1-q15	14	81	8	L vs N	0,00375	PGM3
chr20q13.12	2	83	18	G vs N	0,00375	ACOT8
chr17q21-q24	8	76	19	G vs N	0,003751	PCTP
chr19q13.2	2	85	16	G vs N	0,003762	HNRNPL
chr18q11.2	14	84	5	L vs N	0,003762	C18orf8
chr7q11.23	6	84	13	G vs N	0,003764	STYXL1
chr11p15.5-p15.4	21	81	1	L vs N	0,003766	ILK
chr1q25	3	61	39	G vs N	0,003766	FAM20B
chr1q42.13	0	53	50	G vs N	0,003766	NUP133
chr5p13	6	85	12	G vs N	0,003766	SKP2
chr11q23	31	70	2	L vs N	0,003766	IL10RA
chr14q22.1	13	80	10	G vs N	0,003766	C14orf166
chr10q25-q26	20	80	3	L vs N	0,003767	SEC23IP
chr5q13.2	27	74	2	L vs N	0,003767	TNPO1
chr20q13.2-q13.3	2	73	28	G vs N	0,003776	LAMA5
chr22q13.1	17	83	3	L vs N	0,003785	HMG2L1
chr13q12.3	31	67	5	L vs N	0,003799	POMP
chr16p11.2	2	83	18	G vs N	0,0038	SEPHS2
chr14q32.33	10	80	13	G vs N	0,003807	C14orf2
chr3q23-q24	2	85	16	G vs N	0,003822	WWTR1
chr14q24.3	21	79	3	L vs N	0,003822	C14orf1
chr17q11.2	16	77	10	G vs N	0,003828	SUZ12
chr1q44	1	55	47	G vs N	0,003866	ZNF692
chr8p12-p11.2	47	52	4	L vs N	0,003875	UBXD6
chr11q13	27	72	4	L vs N	0,003891	YAP1
chr9q34.3	11	87	5	L vs N	0,003893	RALGDS
chr3p24.2	20	79	4	L vs N	0,0039	NGLY1
chr4p14-p13	27	74	2	L vs N	0,003923	APBB2
chr3p21	15	85	3	L vs N	0,003936	NME6
chr1p36.23-p36.11	15	85	3	L vs N	0,003936	FBXO42
chr11p15.1	20	80	3	L vs N	0,00394	ZDHHC13
chr20q13.3	1	77	25	G vs N	0,003952	GNAS
chr8q13.1	1	59	43	G vs N	0,003952	RRS1
chr8q11.21	6	67	30	G vs N	0,003957	KIAA0146
chr17q25	7	69	27	G vs N	0,003959	JMJD6
chr4q28.2-q31.1	19	83	1	L vs N	0,003983	NDUFC1
chr5q21-q22	24	78	1	L vs N	0,003985	SRP19
chr4p16.3	19	82	2	L vs N	0,003996	ATP5I
chr8q22.3	1	50	52	G vs N	0,003996	SLC25A32
chr11p15.2	20	80	3	L vs N	0,004026	COPB1
chr12p13.3	6	86	11	G vs N	0,004033	NCAPD2
chr1q21-q23	1	51	51	G vs N	0,004042	HDGF
chr20q13.32	1	76	26	G vs N	0,00405	RAB22A
chr17q21.33	7	72	24	G vs N	0,00405	FLJ20920
chr18q22.2	19	79	5	L vs N	0,00405	SOCS6

chr7q11.23	7	83	13	G vs N	0,004051	CLDN4
chr14q24.3	22	80	1	L vs N	0,004051	NUMB
chr12q14.2	12	82	9	L vs N	0,004052	RASSF3
chr21q22.11	4	87	12	G vs N	0,004059	C21orf45
chr16p13.3	2	83	18	G vs N	0,004065	MRPL28
chr20q12	2	83	18	G vs N	0,004065	SDC4
---	19	82	2	L vs N	0,004079	---
chr10p15.3	6	80	17	G vs N	0,00408	DIP2C
chr17q23.1	5	69	29	G vs N	0,004081	LOC51136
chr22q11.23	15	84	4	L vs N	0,004081	ADORA2A
chr21q22.3	4	84	15	G vs N	0,004081	DSCR2
chr13q34 /// chr3q25.2	2	85	16	G vs N	0,004096	RAP2A /// RAP2B
chr16q23.2	30	69	4	L vs N	0,004096	C16orf61
chr3q29	4	83	16	G vs N	0,004098	SEN5
chr4q28.1	17	86	0	L vs N	0,004098	SPRY1
chr16q22-qter	27	72	4	L vs N	0,004098	COX4I1
chr5q12.1	26	75	2	L vs N	0,004098	SLC30A5
---	16	82	5	L vs N	0,004099	---
chr13q14.3 /// chr1p31-p22	13	80	10	G vs N	0,004124	DLEU2 /// DLEU2L
chr11q22.3- q23.1	34	67	2	L vs N	0,004125	CRYAB
chr8q24.3	3	50	50	G vs N	0,004128	SLC39A4
chr1q21.3	0	48	55	G vs N	0,004131	UBAP2L
chr16p11.2	2	83	18	G vs N	0,004136	CCDC101
chr11q13.1	6	84	13	G vs N	0,004139	B3GNT1
chr20q11.22	1	81	21	G vs N	0,00414	NFS1
chr11q14.1	17	78	8	L vs N	0,00414	CCDC90B
chr6q22.31	15	80	8	L vs N	0,00414	ASF1A
chr10q22-q23	14	83	6	L vs N	0,004144	RPS24
chr1p35.3	13	88	2	L vs N	0,004149	ARID1A
chr7q11.23	6	85	12	G vs N	0,004159	NSUN5
chr22q13.1	17	82	4	L vs N	0,004159	JOSD1
chr16p12.1	2	84	17	G vs N	0,004164	CLN3
chr9q34	11	88	4	L vs N	0,004164	PPP2R4
chr1q24.2	3	54	46	G vs N	0,004234	SCYL3
chr15q21	20	77	6	L vs N	0,004238	MYO5A
chr20q11.1	1	84	18	G vs N	0,004238	ASXL1
chr1q12	0	49	54	G vs N	0,004238	PMF1
chr20q11.2-q12	1	82	20	G vs N	0,004238	BLCAP
chr5p15.32	4	87	12	G vs N	0,004256	KIAA0947
chr15q11-q13 /// chr15q11.2 /// chr15q13.1	27	72	4	L vs N	0,004256	HERC2P2 /// HERC2P3 /// LOC440248
chr22q13.2- q13.31	17	82	4	L vs N	0,00426	CTA-126B4.3
chr4q11-q13	13	90	0	L vs N	0,004264	ALB
chr7p11	4	88	11	G vs N	0,004286	MRPS17
chr21q22.3	4	83	16	G vs N	0,004286	SLC19A1
chr8q24.3	2	50	51	G vs N	0,004286	SHARPIN
chr12q21.2 /// chr6q13-q22.33	14	79	10	L vs N	0,004288	LOC727789 /// RWDD1
chr10q23.33	21	79	3	L vs N	0,004317	TBC1D12
chr1p34.1	9	83	11	G vs N	0,004323	PPIH
chr1p36.2	15	86	2	L vs N	0,004323	KIF1B
chr15q26.1	14	81	8	L vs N	0,004324	AP3S2 /// C15orf38
chr17q21.33	8	72	23	G vs N	0,004324	PDK2
chr15q21-q22.2	26	75	2	L vs N	0,004327	B2M
chr1q21.1	0	52	51	G vs N	0,00434	PEA15
chr4p13-p12	27	74	2	L vs N	0,004356	FLJ20273
chr6p21.3	6	85	12	G vs N	0,004402	NFYA
chr19q13.33	3	85	15	G vs N	0,004402	NOSIP
chr16q22-q23	30	69	4	L vs N	0,004402	MAF

chr15q21.1-q21.2	23	76	4	L vs N	0,004413	EID1
chr13q11-q12	33	65	5	L vs N	0,004416	ZMYM2
chr16q22.1	26	75	2	L vs N	0,004422	CBFB
chr4q23	18	84	1	L vs N	0,004431	MAP2K1IP1
chr22q11.23	14	87	2	L vs N	0,004432	DDT
chr7q11.21	5	86	12	G vs N	0,004442	ZNF117
chr1q24	3	53	47	G vs N	0,004467	BRP44
chr16p13.3-p13.2	4	80	19	G vs N	0,004468	PMM2
chr7p12	6	84	13	G vs N	0,004476	EGFR
chr15q11.2	13	83	7	L vs N	0,004476	HDGFRP3
chr1p13	13	85	5	L vs N	0,004476	GNAI3
chr16p13.3	3	84	16	G vs N	0,00448	IFT140
chr17q21.2	17	79	7	L vs N	0,004511	RAB5C
chr11q13.5	10	79	14	G vs N	0,004538	UVRAG
chr16q24.3	24	73	6	L vs N	0,004548	ANKRD11
chr16q13	25	76	2	L vs N	0,004552	C16orf57
chr6q13-q14.3	12	86	5	L vs N	0,004571	SENP6
chr11p15.4	19	80	4	L vs N	0,004571	IPO7
chr1p36.1	15	87	1	L vs N	0,004571	ECE1
---	11	87	5	L vs N	0,004574	MRPL16
chr15q14-q15	23	75	5	L vs N	0,004583	NOLA3
chr15q21.1	25	75	3	L vs N	0,004606	GATM
chr15q26.1	13	81	9	L vs N	0,004606	UNC45A
chr9q34.13	11	86	6	L vs N	0,004614	SETX
chr1p36.21	15	85	3	L vs N	0,004625	PLEKHM2
chr1q32.2-q32.3	1	53	49	G vs N	0,004634	PPP2R5A
chr17q	6	69	28	G vs N	0,00465	POLG2
chr1q21.3	0	47	56	G vs N	0,004658	PBXIP1
chr16p11.2	2	84	17	G vs N	0,004692	SULT1A3 /// SULT1A4
chr8p23-p22	48	49	6	L vs N	0,004696	MTMR9
chr7p14.2	10	81	12	L vs N	0,0047	KIAA0895
chr4p16	16	85	2	L vs N	0,0047	CTBP1
chr8q22.1	1	55	47	G vs N	0,004704	MTERFD1
chr5q22.3	24	78	1	L vs N	0,004739	TMED7
chr6p22.2	7	84	12	G vs N	0,004744	LRRC16
chr16p13.3	3	83	17	G vs N	0,004744	UBE2I
chr1q42.1	0	56	47	G vs N	0,004744	EPHX1
chr16q24.3/17p11.2 /// chr17p11.2	24	73	6	L vs N	0,004745	LOC388344 /// RPL13
chr5p15.1-p14.3	7	82	14	G vs N	0,004773	MYO10
chr20q13.13	1	77	25	G vs N	0,004773	SLC9A8
chr20q13.1-q13.2	1	76	26	G vs N	0,004785	PTPN1
chr15q21.1	19	80	4	L vs N	0,004785	CCPG1
chr9q13-q21	14	84	5	L vs N	0,004793	ZFAND5
chr1p36.13-q42.3	1	54	48	G vs N	0,004793	INTS7
chr14q24.3	21	81	1	L vs N	0,004793	NUMB
chr1q12-q21	0	51	52	G vs N	0,004796	MTMR11
chr17p13.1	33	68	2	L vs N	0,004796	NDEL1
chr15q21.3 /// chr15q22.1	19	79	5	L vs N	0,004799	Gcom1 /// GRINL1A
chr5p15.33	3	84	16	G vs N	0,00481	TRIP13
chr16p13.3	2	83	18	G vs N	0,004823	DECR2
chr13q12.13	35	62	6	L vs N	0,004828	NUPL1
chr1q21.1	0	54	49	G vs N	0,004828	LOC728980 /// NBPF10 /// NBPF15 /// NBPF16 /// NBPF20 /// NBPF8
chr7q11.23	6	84	13	G vs N	0,004838	GTF2I ///

						GTF2IP1 /// LOC100093631 /// LOC732437
chr6p21	6	84	13	G vs N	0,004838	CDC5L
chr6q25.3	24	72	7	L vs N	0,004849	ACAT2
chr8q24.3	2	53	48	G vs N	0,004858	PTP4A3
chr17p13.3	28	72	3	L vs N	0,004869	RPA1
chr10q25-qter	20	81	2	L vs N	0,004869	MKI67
chr19q13.1	2	84	17	G vs N	0,004886	SPINT2
chr16q23-q24	29	69	5	L vs N	0,004936	PSMD7
chr5q13	27	75	1	L vs N	0,004949	SMN1 /// SMN2
chr14q23.1	17	81	5	L vs N	0,004959	EXOC5
chr8q22	1	58	44	G vs N	0,004963	MYBL1
chr1q21	0	47	56	G vs N	0,004967	MTX1
chr15q21.1	25	75	3	L vs N	0,004982	SPATA5L1
chr18q21.32-q21.33	18	79	6	L vs N	0,005007	VPS4B
chr22q13.2-q13.3	17	82	4	L vs N	0,00501	ARFGAP3
chr5q11.2	21	78	4	L vs N	0,00501	DHX29
chr16p13.3	4	82	17	G vs N	0,00501	THOC6
chr14q24-q31	19	79	5	L vs N	0,00502	CALM1
chr3q28	2	83	18	G vs N	0,005044	EIF4A2
chr17p13.3	29	72	2	L vs N	0,005048	RNMTL1
chr17p13.2	28	72	3	L vs N	0,005071	SPAG7
chr8q12.2	3	60	40	G vs N	0,005106	CHD7
chr6p21.3	5	85	13	G vs N	0,005117	WDR46
chr14q24	21	79	3	L vs N	0,005127	SFRS5
chr20q13.1-q13.3	2	84	17	G vs N	0,005132	SERINC3
chr10p14	6	80	17	G vs N	0,005158	ZMYND11
chr3q27	2	83	18	G vs N	0,005178	RPL39L
---	2	50	51	G vs N	0,005194	---
chr6q23	21	72	10	L vs N	0,005205	TNFAIP3
chr15q24-q25	13	83	7	L vs N	0,005288	STOML1
chr10p14-p13	7	80	16	G vs N	0,005288	UPF2
chr8q22.2-q23.1	2	51	50	G vs N	0,005289	LRP12
chr16p13.3	3	82	18	G vs N	0,005295	TBL3
chr3p21.2-p21.1	18	83	2	L vs N	0,005298	ARF4
chr17q12	17	78	8	L vs N	0,005301	NLE1
chr20p12-p11.2	7	84	12	G vs N	0,005306	NXT1
chr17q21.31	19	78	6	L vs N	0,005314	FAM134C
chr1p36.33 /// chr8p23.3	46	53	4	L vs N	0,005332	FLJ22639 /// LOC728686
chr10q22	15	84	4	L vs N	0,005333	VDAC2
chr11q22-q23	32	70	1	L vs N	0,005353	CUL5
chr1q22	0	49	54	G vs N	0,005356	MAPBPIP
chr1p36.13 /// chr1q21.1	1	64	38	G vs N	0,005363	NBPF1 /// NBPF10
chr17q22-q24	5	70	28	G vs N	0,005363	BRIP1
chr16p13.11	6	81	16	G vs N	0,005375	KIAA0430
chr4q31.3	16	86	1	L vs N	0,005385	ARFIP1
chr1q32.3	1	53	49	G vs N	0,005388	ANGEL2
---	5	85	13	G vs N	0,005388	---
chr3p14.1	19	82	2	L vs N	0,005388	THOC7
chr10q24	18	83	2	L vs N	0,005394	PDCD4
chr14q21.1	16	77	10	G vs N	0,005405	SEC23A
chr15q26.1	13	82	8	L vs N	0,005411	CRTC3
chr21q22.1 21q22.11	4	87	12	G vs N	0,005417	SOD1
chr22q13.1	17	83	3	L vs N	0,005431	RAC2
chr22q13.1	16	83	4	L vs N	0,005443	PICK1
chr21q22.1 21q22.11	3	86	14	G vs N	0,005462	GART
chr1q22-q23	0	52	51	G vs N	0,005488	WDR42A

chr1q24.2	2	60	41	G vs N	0,005488	TOR1AIP1
chr16p12.2	6	81	16	G vs N	0,005498	RBBP6
chr7p15	10	80	13	L vs N	0,005498	TAX1BP1
chr14q23.1	18	81	4	L vs N	0,005509	PPM1A
chr17q25.3	7	73	23	G vs N	0,005517	STRA13
chr6p21.31	5	86	12	G vs N	0,005525	C6orf106
chr17q25	6	71	26	G vs N	0,005526	ITGB4
chr20q13.2	1	78	24	G vs N	0,005528	ZFP64
chr4p16.1	21	81	1	L vs N	0,005536	WDR1
chr3q29-qter	3	84	16	G vs N	0,00554	RPL35A
chr22q13.33	17	83	3	L vs N	0,005551	PLXNB2
chr17q25.3	5	70	28	G vs N	0,005559	USP36
chr1q22	0	47	56	G vs N	0,005576	DPM3
chr10q22.1	14	84	5	L vs N	0,005576	MRPS16
chr16q22.1	26	74	3	L vs N	0,005593	RANBP10
chr16p12-p11	2	84	17	G vs N	0,005604	PPP4C
chr5q12.3	25	75	3	L vs N	0,005609	FLJ13611
chr11p15.3	18	81	4	L vs N	0,005625	C11orf17
chr11q23.1	33	68	2	L vs N	0,005634	C11orf57
chr19q13	2	85	16	G vs N	0,005634	USF2
chr18p11	16	80	7	L vs N	0,005637	AFG3L2
chr1q32-q41	1	54	48	G vs N	0,005642	SLC30A1
---	5	86	12	G vs N	0,005648	---
chr18q21.3	19	78	6	L vs N	0,005648	FECH
chr16p13.3	3	83	17	G vs N	0,00566	DCI
chr20q11.2-q12	1	82	20	G vs N	0,00567	EPB41L1
chr11p15.3-p15.1	19	80	4	L vs N	0,005677	WEE1
chr14q32.31	19	77	7	L vs N	0,005691	PAPOLA
chr6p21.3	5	84	14	G vs N	0,005696	MRPS18A
chr9q21.11	16	82	5	L vs N	0,005708	SMC5
chr12q21	15	85	3	L vs N	0,005709	NUDT4
chr16p13.3	3	85	15	G vs N	0,005709	ADCY9
chr5q22	24	78	1	L vs N	0,00572	FEM1C
chr17p13.3	29	72	2	L vs N	0,005728	GLOD4
chr1q42.12	0	56	47	G vs N	0,005737	SRP9
chr13q13.1	39	59	5	L vs N	0,005771	EXOSC8
chr1q42.3	0	54	49	G vs N	0,005771	RBM34
chr16p13.3	3	84	16	G vs N	0,005787	ZNF500
chr1p32	9	82	12	G vs N	0,005792	PRNPIP
chr12q14.2	13	85	5	L vs N	0,005792	TMEM5
chr6p22.3	6	84	13	G vs N	0,00581	CDKAL1
chr7q11.23	7	83	13	G vs N	0,005824	BCL7B
chr6p24.2	7	82	14	G vs N	0,005835	PAK1IP1
chr6p22-p23	5	82	16	G vs N	0,005848	FAM8A1
chr16p11.2	2	83	18	G vs N	0,005869	SRCAP
chr15q25.1-q25.2	15	79	9	L vs N	0,005869	IDH3A
chr21q22.3	4	82	17	G vs N	0,00587	PKNOX1
chr19p13.2	8	84	11	G vs N	0,005883	TYK2
chr3p24.3-p13	21	80	2	L vs N	0,005883	UBE1C
chr20q13.3	1	74	28	G vs N	0,005883	RPS21
chr11q25	35	67	1	L vs N	0,005905	ACAD8
chr19q13.11-q13.13	2	87	14	G vs N	0,005927	LOC652826 /// PSMC4
chr1q24	3	54	46	G vs N	0,005946	ATP1B1
chr7q21.2	5	85	13	G vs N	0,005948	DKFZP564O052 3
chr8q24.3	3	52	48	G vs N	0,005957	NIBP
chr10p13	7	79	17	G vs N	0,005998	OPTN
chr14q32	18	78	7	L vs N	0,006008	DDX24
chr10q23-q25	21	79	3	L vs N	0,006046	IDE
chr10p15.1	5	78	20	G vs N	0,006076	CALML5
chr3p21.31-	13	86	4	L vs N	0,006104	PARP3

p21.1						
chr20p13	12	85	6	L vs N	0,006104	NSFL1C
chr20q13	1	77	25	G vs N	0,006123	TH1L
chr11q23	28	72	3	L vs N	0,00613	CASP1
chr6p21.31	6	84	13	G vs N	0,006143	C6orf49
chr4p16.1	18	84	1	L vs N	0,006146	MRFAP1L1
chr14q24.3	22	80	1	L vs N	0,006152	RBM25
chr18p11.21	16	81	6	L vs N	0,006182	SEH1L
chr8p21.1	48	52	3	L vs N	0,006182	KIF13B
chr13q12.11	33	65	5	L vs N	0,006182	PSPC1
chr10q26.3	16	85	2	L vs N	0,006182	VENTX
---	27	75	1	L vs N	0,006191	---
chr16q24	24	73	6	L vs N	0,006191	CDK10
chr1q32	0	65	38	G vs N	0,006221	UCHL5
chr1p31	13	80	10	G vs N	0,006228	PGM1
chr20q13.1-q13.2	1	77	25	G vs N	0,006231	B4GALT5
chr11q13.4	10	79	14	G vs N	0,006231	CHCHD8
chr1q32.1	0	56	47	G vs N	0,006241	SRGAP2
chr16p12	4	83	16	G vs N	0,00625	GTF3C1
chr14q13	17	76	10	G vs N	0,006262	SIP1
chr13q14	39	60	4	L vs N	0,006267	SLC25A15
chr11q22.3-q23.3	33	68	2	L vs N	0,006267	PTS
chr17q25.1	6	70	27	G vs N	0,006301	CASKIN2
chr19q13.4 /// chrXp22.31	7	83	13	G vs N	0,006307	LOC392424 /// RPS5
chr17q11.2	16	77	10	L vs N	0,00633	NF1
chr22q11.2	16	84	3	L vs N	0,006356	CECR1
chr1q22	0	49	54	G vs N	0,006375	KIAA0907
chr16p11.2	2	84	17	G vs N	0,006389	GIYD1 /// GIYD2
chr21q22.3	4	83	16	G vs N	0,006389	COL18A1
chr16q24.1-q24.2	30	68	5	L vs N	0,006389	HSD17B2
chr16p12.1-p11.2	4	83	16	G vs N	0,006389	KIAA0556
chr21q11.1 21q11	17	76	10	L vs N	0,006428	STCH
chr6p21.2-p21.1	5	85	13	G vs N	0,006429	SLC29A1
chr17p13.3	27	73	3	L vs N	0,006441	SGSM2
chr14q11.2-q12	12	81	10	L vs N	0,006441	PARP2
chr1q21-q22	1	51	51	G vs N	0,006466	MRPL24
chr15q24	13	82	8	L vs N	0,006502	ARIH1
chr1q41-q42	0	53	50	G vs N	0,006509	GALNT2
chr15q21.2	22	75	6	L vs N	0,00653	USP8
chr17p11.2	26	73	4	L vs N	0,006538	ATPAF2
chr9q22.1	13	87	3	L vs N	0,006538	CCRK
chr6q25.2-q26	24	71	8	L vs N	0,006543	VIL2
chr22q13.31	18	82	3	L vs N	0,006543	SAMM50
chr6p21	7	84	12	G vs N	0,006546	PRSS16
chr4q28	19	83	1	L vs N	0,006549	RAB33B
chr1q21.3	0	49	54	G vs N	0,006549	C1orf77
chr22q11.21 22q11.2	15	83	5	L vs N	0,006549	DGCR14
chr11q13	4	86	13	G vs N	0,006549	RBM4
chr17p13.1	31	70	2	L vs N	0,006549	TNFSF12- TNFSF13 /// TNFSF13
chr3p22.3	13	85	5	L vs N	0,006566	PDCD6IP
chr3p21.3	15	85	3	L vs N	0,006566	USP4
chr17q25.2	7	68	28	G vs N	0,00658	C17orf86
chr21q22.1	3	86	14	G vs N	0,006586	DONSON
---	15	78	10	L vs N	0,00663	C17orf42
---	9	83	11	G vs N	0,006669	---
chr17q11	17	78	8	L vs N	0,006669	RAD51L3

chr14q22-q23	17	81	5	L vs N	0,006669	PRKCH
chr10q26.3	14	87	2	L vs N	0,006669	MTG1
chr3p21.3	14	85	4	L vs N	0,006676	RBM6
chr22q12.1	14	85	4	L vs N	0,006676	PITPNB
chr16q24.3	24	73	6	L vs N	0,006687	FANCA
chr16q24.1	28	71	4	L vs N	0,006698	C16orf44
chr8p22	48	51	4	L vs N	0,006712	MTUS1
chr3p25.3-p24.1	13	86	4	L vs N	0,006712	TRAK1
chr1p36.22	15	86	2	L vs N	0,006728	PEX14
chr13q22.1	39	61	3	L vs N	0,006728	C13orf24
chr19q13.1-q13.2	2	85	16	G vs N	0,006728	MRPS12
chr14q32.12-q32.13	19	78	6	L vs N	0,006728	GOLGA5
chr10q25.1	15	86	2	L vs N	0,006728	SLK
chr10q26.2-q26.3	16	85	2	L vs N	0,006728	ECHS1
chr17p13.2	29	72	2	L vs N	0,00673	NUP88
chr4q13.2	15	87	1	L vs N	0,00673	UBE1L2
chr11q23.3	35	66	2	L vs N	0,00673	STT3A
chr4q31.1-q31.2	17	84	2	L vs N	0,006786	ZNF330
chr18p11.3	16	80	7	L vs N	0,006786	RALBP1
chr8p21	52	49	2	L vs N	0,006786	BNIP3L
chr5q35.3	4	88	11	G vs N	0,006788	DDX41
chr11p15.5	22	79	2	L vs N	0,006817	FRAG1
chr1q32	0	54	49	G vs N	0,00685	MAPKAPK2
chr18q12-q21	16	82	5	L vs N	0,00685	ATP5A1
chr6q13	11	87	5	L vs N	0,006872	MTO1
chr15q14	24	76	3	L vs N	0,006891	AQR
chr13q22.2	38	61	4	L vs N	0,006891	UCHL3
chr6p23	6	81	16	G vs N	0,006894	RANBP9
chr20p11.22	10	82	11	G vs N	0,006914	RIN2
chr14q22.3	14	82	7	L vs N	0,00692	C14orf32
chr6p24.2	7	82	14	G vs N	0,00692	GCNT2
chr16p11.2	2	83	18	G vs N	0,006923	PRR14
chr22q13.1	17	84	2	L vs N	0,006923	RBM9
chr17q23.2 /// chr7q32.1	5	70	28	G vs N	0,006926	METTL2A /// METTL2B
chr16p12.3	7	83	13	G vs N	0,006941	IQCK
chr9q22.33	12	87	4	L vs N	0,00696	ZNF510
chr9q34.11	12	87	4	L vs N	0,00696	ZER1
chr7p15.2-p15.1	4	87	12	G vs N	0,00696	PSPH
chr12q24.1	14	85	4	L vs N	0,006966	SART3
chr10pter-p11.2	7	79	17	G vs N	0,006997	PHYH
chr3p21	14	86	3	L vs N	0,007057	LAMB2
---	0	78	25	G vs N	0,007071	LOC727942
chr20q13.11	2	84	17	G vs N	0,007086	C20orf111
chr13q13	40	59	4	L vs N	0,007139	ELF1
chr20pter-q12	1	81	21	G vs N	0,007139	ERGIC3
chr20q11.23	1	81	21	G vs N	0,007139	DLGAP4
chr1q42-q43	0	56	47	G vs N	0,00717	LGALS8
chr17p12	33	68	2	L vs N	0,007176	STX8
chr3q25.31	3	85	15	G vs N	0,007201	PLCH1
chr3q25.1	3	85	15	G vs N	0,007201	MLF1
chr8p23.1 /// chr8pter-p23.3	50	48	5	L vs N	0,007203	DEFA1 /// DEFA3 /// LOC728358
chr22q13.1	17	83	3	L vs N	0,007204	MYH9
chr12q14.1	13	85	5	L vs N	0,007265	TBK1
chr8q21.1-q21.2	1	55	47	G vs N	0,007286	MRPS28
chr4q31.1-q31.2	17	85	1	L vs N	0,007315	SMARCA5
chr1p36.2	16	85	2	L vs N	0,007383	PIK3CD
chr7q22.1	6	83	14	G vs N	0,007405	ATP5J2
chr17q24-q25	6	71	26	G vs N	0,007417	CDC42EP4

chr1p13.3-p13.1	13	86	4	L vs N	0,007445	SARS
chr13q14.11	39	60	4	L vs N	0,007446	AKAP11
chr20q11.22-q11.23	1	81	21	G vs N	0,007471	PHF20
chr16q22.1	26	73	4	L vs N	0,007474	NFAT5
chr12p13	5	87	11	G vs N	0,007504	MBOAT5
chr1p34.3	11	87	5	L vs N	0,007504	MAP7D1
chr1p35.2	11	89	3	L vs N	0,007509	PUM1
chr13q13.3	39	59	5	L vs N	0,007516	FAM48A
chr4q11	14	87	2	L vs N	0,007516	SRP72
chr17p13	29	72	2	L vs N	0,007537	TIMM22
chr1q21	0	47	56	G vs N	0,007547	MUC1
chr11q23.3	31	70	2	L vs N	0,007559	FXYP6
chr16p13.3	3	83	17	G vs N	0,007561	C16orf42
chr1p36.12	15	87	1	L vs N	0,00758	EIF4G3
chr4q13.2	15	87	1	L vs N	0,00758	YTHDC1
chr20q11.2	1	83	19	G vs N	0,00759	RBL1
chr1q21.2	0	50	53	G vs N	0,007623	ANP32E
chr15q15.3	26	75	2	L vs N	0,007671	EIF3J
chr1q22-q23	0	56	47	G vs N	0,007671	ATF6
chr9q22.31	13	85	5	L vs N	0,007671	PHF2
chr6q25.2-q25.3	23	72	8	L vs N	0,007692	DYNLT1
chr1p35.1	11	87	5	L vs N	0,007704	YARS
chr13q32.3	28	68	7	L vs N	0,007704	TM9SF2
chr10q23.2-q23.33	21	79	3	L vs N	0,007704	BLNK
chr15q25.3	13	80	10	G vs N	0,007714	ZNF592
chr10p14	7	79	17	G vs N	0,007721	DHTKD1
chr6q16.1	15	80	8	L vs N	0,007721	KIAA0776
chr22q13.1	17	83	3	L vs N	0,007721	TXN2
chr5q14	28	74	1	L vs N	0,007721	ZFYVE16
chr3q29	3	85	15	G vs N	0,007725	DLG1
chr6p21.31	5	86	12	G vs N	0,007725	ANKS1A
chr19q13.3	3	85	15	G vs N	0,007725	PRMT1
chr1p13-p11	5	83	15	G vs N	0,007725	NOTCH2
chr11p15	21	81	1	L vs N	0,00774	TPP1
chr17q21.31	20	75	8	L vs N	0,007759	GJA7
chr1q32.3	1	53	49	G vs N	0,007784	NENF
chr1p35.1	11	86	6	L vs N	0,007785	TXLNA
chr15q26.1	14	81	8	L vs N	0,007792	NGRN
chr16p13.13	5	81	17	G vs N	0,007796	NUBP1
chr10q23.2	16	86	1	L vs N	0,007801	FAM35A
chr8q24.3	3	50	50	G vs N	0,007801	ZNF34
chr11q13.3	3	78	22	G vs N	0,007805	SHANK2
chr16q24	24	73	6	L vs N	0,007848	C16orf7
chr1q21-q25	0	51	52	G vs N	0,007871	TAGLN2
chr21q22.3	4	84	15	G vs N	0,007905	SLC37A1
chr1p36.3	15	83	5	L vs N	0,007905	ARHGEF16
chr3p25-p24	20	79	4	L vs N	0,007985	RPL32
chr4q33	17	81	5	L vs N	0,007985	NEK1
chr14q23-q24.2	20	80	3	L vs N	0,007993	ATP6V1D
chr16q22.1	26	74	3	L vs N	0,007993	DPEP3
chr6q25.1	25	69	9	L vs N	0,007996	KATNA1
chr22q13.2	16	83	4	L vs N	0,008009	SLC25A17
chr16q12.1	29	71	3	L vs N	0,008018	HEATR3
chr1p34-p33	9	82	12	G vs N	0,008027	B4GALT2
chr1p36.22	16	85	2	L vs N	0,008045	CLSTN1
chr19q13.2	2	85	16	G vs N	0,008045	PSMD8
chr6p22.2	6	84	13	G vs N	0,008083	C6orf62
chr19q13.3-q13.4	3	85	15	G vs N	0,008084	IRF3
chr10q24.3	15	85	3	L vs N	0,008084	TRIM8
chr3p21.31	15	85	3	L vs N	0,008084	WDR6

chr20q13.33	0	75	28	G vs N	0,008104	SLC2A4RG
chr22q13	16	81	6	L vs N	0,008142	RANGAP1
chr8q21	2	55	46	G vs N	0,008202	NBN
chr14q24.3	22	80	1	L vs N	0,008222	GSTZ1
chr18p11.22	16	80	7	L vs N	0,008227	NAPG
chr5q13.3-q14	27	74	2	L vs N	0,008227	HMGCR
chr19q13.12	2	87	14	G vs N	0,008244	RBM42
chr16p12.1	2	83	18	G vs N	0,008244	SULT1A2
chr1q32.3-q41	1	56	46	G vs N	0,008244	IRF6
chr12q22	15	85	3	L vs N	0,008289	UBE2N
chr3p21.1	15	85	3	L vs N	0,008289	TMEM110
chr7q11-q22 /// chr7q11.23	6	84	13	G vs N	0,008291	LOC441259 /// LOC729299 /// LOC729453 /// LOC730313 /// LOC730324 /// PMS2L5
chr22q11.21	13	84	6	L vs N	0,008291	HIC2
chr15q25.3	13	80	10	L vs N	0,008292	ZNF592
chr1p35.1	11	87	5	L vs N	0,008327	BSDC1
chr5q31-q33	11	87	5	L vs N	0,008327	CNOT8
chr3p24.3	11	83	9	L vs N	0,008339	SH3BP5
chr3p22.3	14	83	6	L vs N	0,008339	GPD1L
chr8p12-p11.2	46	53	4	L vs N	0,008357	WRN
chr20q12	1	83	19	G vs N	0,008385	EIF6
chr11q23.3	30	71	2	L vs N	0,008385	MIZF
chr16p13.3	2	83	18	G vs N	0,008415	SOLH
chr13q14.2	41	58	4	L vs N	0,008425	UTP14C
chr5p15	4	88	11	G vs N	0,008425	SRD5A1
chr8p23.3	47	50	6	L vs N	0,008433	MYOM2
chr16q24.1	27	72	4	L vs N	0,008447	ZDHHC7
chr1q23.3	0	50	53	G vs N	0,008484	DEDD
chr10q23.31	22	79	2	L vs N	0,008491	IFIT5
chr11p15.5- p15.4	21	81	1	L vs N	0,008551	MRPL17
chr22q12	17	82	4	L vs N	0,008575	CBY1
chr6q16.3	16	77	10	G vs N	0,008576	SFRS18
---	14	81	8	L vs N	0,008627	---
chr1q42-q43	0	53	50	G vs N	0,008637	RAB4A
chr18q21.1	19	79	5	L vs N	0,008637	POLI
chr11p15.5- p15.4	22	79	2	L vs N	0,008687	RHOG
chr1p36.33- p36.11	15	85	3	L vs N	0,008688	SPEN
chr3p21.31	15	85	3	L vs N	0,008688	TREX1
chr20q13.1- q13.2	1	77	25	G vs N	0,008698	SPATA2
chr18q23	15	83	5	L vs N	0,008698	PQLC1
chr19p13.2	8	84	11	G vs N	0,008703	EIF3G
chr3q29	4	85	14	G vs N	0,008703	DLG1
chr1q21	0	49	54	G vs N	0,00872	S100A11
chr15q25.3	13	80	10	L vs N	0,008757	SEC11A
chr20q11.23	1	83	19	G vs N	0,008757	KIAA1219
chr3p23-p21	13	87	3	L vs N	0,008765	NKTR
chr22q12-q13	17	82	4	L vs N	0,008765	TOMM22
chr18p11.31	14	83	6	L vs N	0,008767	MRLC2
chr16p12.1	2	83	18	G vs N	0,008775	SULT1A1
chr1q32.1	0	55	48	G vs N	0,008775	ATP2B4
chr1p34.3	11	87	5	L vs N	0,008775	C1orf216
chr16p13.3	3	83	17	G vs N	0,008779	TSC2
chr1p36.22	16	85	2	L vs N	0,008779	CTNNBIP1
chr11q13	4	86	13	G vs N	0,008801	RBM4B
chr9q22.3	13	86	4	L vs N	0,008801	XPA
chr6q27	23	73	7	L vs N	0,008813	C6orf120
chr1q22	0	51	52	G vs N	0,008839	LOC731059 ///

						MSTO1
chr16q24.1	30	68	5	L vs N	0,008851	GAN
chr22q11.21	15	83	5	L vs N	0,008866	PEX26
chr16p13.3	2	83	18	G vs N	0,008973	NME4
chr22q12.2	14	83	6	L vs N	0,008973	SMTN
chr5q31.1	14	86	3	L vs N	0,008973	UQCRQ
chr10q24	17	83	3	L vs N	0,008981	COX15
chr17q11.2	16	78	9	L vs N	0,008993	DNAJC7
chr1q42.1-q43	0	55	48	G vs N	0,009064	ARID4B
chr10q23	16	82	5	L vs N	0,009064	ANXA11
chr11q24	31	69	3	L vs N	0,009066	MPZL2
chr11p15	21	81	1	L vs N	0,009067	ARFIP2
chr3q26.1	2	86	15	G vs N	0,009067	PDCD10
chr22q11.21	13	82	8	L vs N	0,009071	PI4KA
chr13q31.1	35	62	6	L vs N	0,009103	RBM26
chr6p21	5	85	13	G vs N	0,009103	STK38
chr21q22.1 21q22.13	4	85	14	G vs N	0,009122	HLCS
chr6p21.1	6	84	13	G vs N	0,009162	MED20
chr6p22-p21	6	84	13	G vs N	0,009162	ID4
chr3p25	13	84	6	L vs N	0,009162	BTD
chr11q22.3	30	71	2	L vs N	0,009162	SLC35F2
chr4p12	21	82	0	L vs N	0,009162	FRYL
chr10q21-q22	17	83	3	L vs N	0,009178	ERLIN1
chr9q21.33	13	87	3	L vs N	0,009182	MAK10
chr6q21	16	78	9	L vs N	0,009212	CCNC
chr7q22	6	85	12	G vs N	0,00924	EPHB4
chr11q13.1	4	81	18	G vs N	0,009242	SSH3
chr14q24.3	21	81	1	L vs N	0,009242	ACOT1 /// ACOT2
chr14q23.1	18	81	4	L vs N	0,009242	DHRS7
chr5q31	12	87	4	L vs N	0,009257	JMJD1B
chr9q34.11	12	87	4	L vs N	0,009257	C9orf114
chr3p21.1	15	85	3	L vs N	0,009266	SPCS1
chr1q23	2	50	51	G vs N	0,009266	UCK2
chr19q13	3	85	15	G vs N	0,009266	TFPT
chr1p35.3	12	89	2	L vs N	0,009277	PHACTR4
chr18q21.2-q21.3	19	78	6	L vs N	0,009284	NARS
chr16p13-p11 /// chr16p13.11	5	81	17	G vs N	0,009284	LOC339047 /// LOC642778 /// LOC642799 /// NPIP
chr10q22	15	83	5	L vs N	0,009284	PCBD1
chr8q21	2	55	46	G vs N	0,009286	WWP1
chr14q	15	78	10	G vs N	0,009319	YY1
chr22q12.3	16	81	6	L vs N	0,009319	DEPDC5
chr22q13.1	17	83	3	L vs N	0,00935	MPST
chr3p22.1	13	87	3	L vs N	0,009378	HIGD1A
chr8q24-qter	2	49	52	G vs N	0,009378	LY6D
chr4q21.2	17	85	1	L vs N	0,009417	KLHL2
chrXq24	18	83	2	L vs N	0,009421	C1GALT1C1
chr16q24	27	72	4	L vs N	0,009425	COX4NB
chr12q22-q23	13	86	4	L vs N	0,009438	NFYB
chr11q22.2-q22.3	28	72	3	L vs N	0,009438	CASP4
---	12	85	6	L vs N	0,009438	---
chr1p36.21	16	84	3	L vs N	0,009438	ICMT
chr3q29	3	84	16	G vs N	0,009438	LRCH3
chr6p21.3	5	84	14	G vs N	0,00944	DHX16
chr5q21.1	25	77	1	L vs N	0,009468	GIN1
chr8q22.2	1	52	50	G vs N	0,009478	VPS13B
chr9q32	12	89	2	L vs N	0,009478	C9orf91
chr16q13-q21	25	74	4	L vs N	0,00949	KIFC3

chr22q12.3-q13.1	17	82	4	L vs N	0,009498	PSCD4
chr8q12.1	4	61	38	G vs N	0,009514	IMPAD1
chr14q24.1	20	80	3	L vs N	0,009516	ZFYVE26
chr15q2 15q22	19	79	5	L vs N	0,009516	ADAM10
chr11p15.5	19	82	2	L vs N	0,009525	NAP1L4
chr9p13.2	17	77	9	L vs N	0,009537	POLR1E
chr12q23.2	13	84	6	L vs N	0,009543	ARL1
chr17p13.1	31	70	2	L vs N	0,009543	ALOXE3
chr22q11.2	13	84	6	L vs N	0,009543	THAP7
chr14q31	21	80	2	L vs N	0,009605	GALC
chr7q22.1	7	83	13	G vs N	0,009628	LOC732139 /// PMS2L1
chr12q21.2	15	85	3	L vs N	0,009629	KRR1
chr3q24	1	89	13	G vs N	0,009633	ZIC1
chr22q11.21	15	84	4	L vs N	0,009647	PPIL2
chr14q12	12	81	10	G vs N	0,00966	NUBPL
chr13q12	35	62	6	L vs N	0,009666	MTMR6
chr14q22.2	16	79	8	L vs N	0,009674	SAMD4A
chr9q31.1	14	85	4	L vs N	0,009674	STX17
chr22q13.2-q13.31	16	81	6	L vs N	0,009674	TOB2
chr11q24.2	35	67	1	L vs N	0,009674	C11orf61
chr6p21.1	5	85	13	G vs N	0,009675	PEX6
chr16q22.1	26	74	3	L vs N	0,009675	HSPC171
chr3q29	2	84	17	G vs N	0,009704	LSG1
chr21q22.11	3	87	13	G vs N	0,009769	TMEM50B
chr11q13.5	10	79	14	L vs N	0,009775	UVRAG
chr1q23.1	2	50	51	G vs N	0,009778	ALDH9A1
chr11p15.4	18	80	5	L vs N	0,009791	EIF3F
chr22q11.1	15	85	3	L vs N	0,009818	BID
chr6q26	25	72	6	L vs N	0,009818	IGF2R
chr11p13	12	82	9	L vs N	0,009823	PDHX
chr17q25.1	6	70	27	G vs N	0,009828	GGA3
chr13q12.2	34	62	7	L vs N	0,00984	RNF6
chr1q22	0	47	56	G vs N	0,009856	RAG1AP1
chr10q24-q25	18	82	3	L vs N	0,009888	MMS19
chr19q13.13	2	84	17	G vs N	0,00991	SIPA1L3
chr20p11.21	7	81	15	G vs N	0,00991	GINS1
chr11q13.4	8	82	13	G vs N	0,009919	C11orf51
chr20q13.2	1	77	25	G vs N	0,009926	ATP9A
chr8q24.2	2	51	50	G vs N	0,00993	KHDRBS3
chr5q12.3	25	75	3	L vs N	0,009951	P18SRP
chr15q22.1	18	80	5	L vs N	0,010002	FAM63B
chr11q23	31	70	2	L vs N	0,01001	CD3D
chr3p24	19	81	3	L vs N	0,01001	PCAF
chr16p11.2	2	83	18	G vs N	0,010034	HIRIP3
chr19q13.33	3	85	15	G vs N	0,010034	PIH1D1
chr17p13.2	28	72	3	L vs N	0,010047	CAMTA2
chr20q11.23	1	81	21	G vs N	0,010047	DSN1
chr3p26-p24	11	86	6	L vs N	0,010047	IL5RA
chr22q11.21	13	83	7	L vs N	0,010078	PI4KA /// PI4KAP1 /// PI4KAP2
chr12cen-q21	18	82	3	L vs N	0,010086	SYT1
chr22q13.1	17	83	3	L vs N	0,010086	NCF4
chr4p13-p12	27	75	1	L vs N	0,010086	SLC30A9
chr4q21.21	16	85	2	L vs N	0,010106	FRAS1
chr17q12	18	78	7	L vs N	0,010108	PEX12
chr1p36.11	12	90	1	L vs N	0,010126	TMEM50A
chr4p16.1	18	84	1	L vs N	0,010186	KIAA0232
chr20q11.2	1	86	16	G vs N	0,010233	E2F1
chr16p13.3	3	84	16	G vs N	0,010233	MAPK8IP3
chr10q25.2	18	83	2	L vs N	0,010247	LOC92482

chr16p11.2	2	83	18	G vs N	0,010247	C16orf53
chr3q25.32	3	85	15	G vs N	0,010266	CCNL1
chr3p21.31	15	85	3	L vs N	0,010266	DHX30
chr14q24.1	20	79	4	L vs N	0,010279	SLC39A9
chr4p16.3	19	82	2	L vs N	0,010279	ATP5I /// MFSD7
chr4q31.23	19	83	1	L vs N	0,010339	TMEM34
chr22q13.2	16	83	4	L vs N	0,010339	EP300
chr14q24.2	21	80	2	L vs N	0,010339	SIPA1L1
chr1q24-q25	4	58	41	G vs N	0,010339	CACYBP
chr6p21.31	5	86	12	G vs N	0,010364	TAF11
chr1q21-q23	0	50	53	G vs N	0,010401	B4GALT3
chr10p11.21 /// chr1q23	2	50	51	G vs N	0,010401	HSD17B7 /// HSD17B7P2 /// LOC730412
chr6pter-p21.31	5	85	13	G vs N	0,010401	CUTA
chr7q21-q22	5	87	11	G vs N	0,010405	KRIT1
chr19q13.3	3	86	14	G vs N	0,010405	RUVBL2
chr7p22	5	87	11	G vs N	0,010405	MAD1L1
chr5pter-p15.2	3	84	16	G vs N	0,01043	PDCD6
chr20q13.2- q13.3	0	77	26	G vs N	0,010471	TPD52L2
chr1p13.3	14	87	2	L vs N	0,010471	PRPF38B
chr22q11.21	13	84	6	L vs N	0,010471	SNAP29
chr6p21.3	6	84	13	G vs N	0,010471	HMGNA4
chr12q22-q23	13	84	6	L vs N	0,010471	IGF1
chr1q22	0	46	57	G vs N	0,010477	PMVK
chr1p36.3	16	85	2	L vs N	0,010549	ZBTB48
chr8q24	2	50	51	G vs N	0,010568	PLEC1
chr5q31.1	14	85	4	L vs N	0,010608	PPP2CA
chr1p34.3	12	87	4	L vs N	0,010627	PHC2
chr19q13.2	3	88	12	G vs N	0,010627	SPHK2
chr4p14-p13	27	75	1	L vs N	0,010631	RFC1
chr8q21.2	2	56	45	G vs N	0,010631	E2F5
chrXp11.3- p11.23	22	77	4	L vs N	0,010767	DDX3X
chr11p15	19	80	4	L vs N	0,010824	LYVE1
chr1q25.3	2	61	40	G vs N	0,010829	STX6
chr3p22	11	88	4	L vs N	0,010829	MYD88
chr13q12.3- q13.1	32	66	5	L vs N	0,010831	GTF3A
chr22q12.2- q12.3	16	81	6	L vs N	0,010831	C22orf30
chr16q23.1	29	69	5	L vs N	0,010831	ADAT1
chr20q12	1	84	18	G vs N	0,010831	NCOA3
chr3p21.31	14	85	4	L vs N	0,010857	IHPK1
chr20q11.22	1	86	16	G vs N	0,010881	PXMP4
chr15q22	12	84	7	L vs N	0,010881	SLC24A1
chr17q21	19	78	6	L vs N	0,010881	TUBG2
chr12q24.11	12	86	5	L vs N	0,010881	TECT1
chr22q11.23 22q 11	14	86	3	L vs N	0,010893	SMARCB1
chr8q21.13	1	58	44	G vs N	0,010951	ZFAND1
chr15q21.2	20	77	6	L vs N	0,010952	DMXL2
chr5q15	27	75	1	L vs N	0,011006	ARTS-1
chr4p16.3	18	84	1	L vs N	0,011016	TNIP2
chr20q13.33	0	77	26	G vs N	0,011022	ZNF512B
chr5p13.1	7	85	11	G vs N	0,011037	NUP155
chr16q12.2-q13	25	76	2	L vs N	0,011061	HERPUD1
chr15q15-q21.1	24	75	4	L vs N	0,011137	DUT
chr17q11.2	17	79	7	L vs N	0,011162	CCL18
chr20p12	11	86	6	L vs N	0,011163	TXNDC13
chr6p21.3	5	85	13	G vs N	0,011176	MSH5
chr6p21.3	5	85	13	G vs N	0,011176	BAT1
---	5	63	35	G vs N	0,011209	---

chr10q24	15	85	3	L vs N	0,011209	NFKB2
chr15q25.1	13	82	8	L vs N	0,011211	MTHFS
chr10q24.31	17	84	2	L vs N	0,011211	C10orf6
chr4q27	17	85	1	L vs N	0,011219	EXOSC9
chr3p22	14	83	6	L vs N	0,011222	TGFBR2
chr3q25.33	4	84	15	G vs N	0,011222	MFS1
chr1p36.1-p35	13	89	1	L vs N	0,011265	RPL11
chr15q22.33-q23	13	86	4	L vs N	0,011331	FLJ11506
chr4q13 /// chr4q13.2	15	87	1	L vs N	0,011375	LOC728160 /// UGT2B15 /// UGT2B17
chr20q13.3	0	74	29	G vs N	0,0114	EEF1A2
chr1p35.3	12	89	2	L vs N	0,011423	FAM76A
chr18q12	16	82	5	L vs N	0,011423	IER3IP1
chr6q26	25	72	6	L vs N	0,011423	MAP3K4
chr19q13.4	6	86	11	G vs N	0,011449	ZNF304
chr16p13.3	3	83	17	G vs N	0,011449	ATP6V0C
chr15q25.2	13	80	10	L vs N	0,011449	WDR73
chr6p21.3-p21.2	5	85	13	G vs N	0,011449	SRPK1
chr20q13.13	1	81	21	G vs N	0,011477	ARFGEF2
chr16q24	30	67	6	L vs N	0,011499	MLYCD
chr10q23.2	14	88	1	L vs N	0,011523	WAPAL
chr16q24.2	28	70	5	L vs N	0,011524	MAP1LC3B
chr17q24.3	7	74	22	G vs N	0,011536	ABCA5
chr10q25	18	83	2	L vs N	0,011536	SHOC2
chr3q26.2-q27	2	83	18	G vs N	0,011536	SFRS10
chr7p15-p14	10	80	13	L vs N	0,011536	C7orf24
chr6p12	5	84	14	G vs N	0,011536	VEGFA
chr12p13	5	84	14	G vs N	0,011536	FOXM1
chr22q12.3	16	81	6	L vs N	0,011536	YWHAH
chr11q22-q23	32	69	2	L vs N	0,011536	TRIM29
chr13q32-q33	26	69	8	L vs N	0,011539	TPP2
chr3p21-p12	21	80	2	L vs N	0,011568	TMF1
chr1p31.1	14	85	4	L vs N	0,011578	USP33
chr5p15.33	4	85	14	G vs N	0,011578	NDUFS6
chr4q31.3	15	87	1	L vs N	0,011578	KIAA0922
chr11p13	13	81	9	L vs N	0,011579	TRIM44
chr16p13.3	3	84	16	G vs N	0,01158	NUBP2
chr3p21.31	13	88	2	L vs N	0,011599	CCR2 /// LOC729230
chr9q34.11	11	88	4	L vs N	0,011599	NUP188
chr20p13	11	85	7	L vs N	0,011599	SNRPB
chr15q24.2	13	83	7	L vs N	0,011622	NEIL1
chr19q13.4	3	85	15	G vs N	0,011664	CNOT3
chr6p22-p21	5	85	13	G vs N	0,011673	FANCE
chr4p16.3	16	85	2	L vs N	0,011681	LOC730744 /// MAEA
chr13q13.3	41	57	5	L vs N	0,011681	UFM1
chr19q13.1	2	85	16	G vs N	0,011681	FBL
chr13q33.1	26	69	8	L vs N	0,011735	C13orf27
chr10q25	18	83	2	L vs N	0,011736	SMC3
chr4p12	23	80	0	L vs N	0,011758	COMMD8
chr14q24.2	22	80	1	L vs N	0,011767	MED6
chr4q22.1	18	85	0	L vs N	0,011802	NUDT9
chr18q21.33	18	79	6	L vs N	0,011873	ZCCHC2
chr6q14.1	14	81	8	L vs N	0,011912	IBTK
chr1p36.22	16	85	2	L vs N	0,011955	RP5-1077B9.4
chr11q13.3	2	74	27	G vs N	0,01198	TMEM16A
chr17q25	6	70	27	G vs N	0,012001	sept-09
chr13q14.3	42	57	4	L vs N	0,012005	DLEU1
chr7p15-p14	10	80	13	G vs N	0,012006	C7orf24
chr5p12	6	86	11	G vs N	0,012022	C5orf28
chr5q12.3	25	75	3	L vs N	0,012141	PPWD1

chr16q22-q24	2	84	17	G vs N	0,012177	ALDOA
chr15q26.1	13	81	9	L vs N	0,0122	VPS33B
chr8q22	1	50	52	G vs N	0,0122	UBR5
chr5q13	27	74	2	L vs N	0,012201	HEXB
---	3	44	56	G vs N	0,01224	---
chr6p21.33	5	85	13	G vs N	0,012268	TUBB
chr5q31	12	87	4	L vs N	0,012276	SIL1
chr19q13.1	2	87	14	G vs N	0,012396	MLL4
chr3q29	3	84	16	G vs N	0,012396	KIAA0226
chr11q23.1	34	67	2	L vs N	0,012402	DLAT
chr14q21.3	17	78	8	L vs N	0,012442	FKBP3
chr3q22-q24	2	90	11	G vs N	0,012451	ATR /// LOC648152
chr21q22.1- q22.2 21q22.11	3	86	14	G vs N	0,012498	ATP5O
chr3p21.31	13	88	2	L vs N	0,012498	FYCO1
chr10q22-q23	21	80	2	L vs N	0,012519	BTAF1
chr8q24	0	44	59	G vs N	0,012565	PVT1
chr4q24	19	83	1	L vs N	0,012602	BANK1
chr15q11.2- q21.3	26	73	4	L vs N	0,012606	PLA2G4B
chr9q22-q31	15	83	5	L vs N	0,01266	ZNF189
chr16q21	27	74	2	L vs N	0,012685	C16orf80
chr1p36.13	15	87	1	L vs N	0,012685	KIAA0090
chr22q13.1	16	84	3	L vs N	0,012687	MAFF
chr17p13.3	27	73	3	L vs N	0,012687	MNT
chr8q24.13	4	44	55	G vs N	0,0127	DERL1
chr16p13.3	3	83	17	G vs N	0,012725	RPS2
chr4p14	26	76	1	L vs N	0,012728	HIP2
chr11q13	10	79	14	L vs N	0,012748	UCP2
chr14q24.3	22	80	1	L vs N	0,012748	VASH1
chr1p34.2	9	83	11	G vs N	0,012748	ELOVL1
chr1p31.3 /// chr1p32.3	11	83	9	L vs N	0,012748	C1orf175 /// TTC4
chr20p11.23	11	82	10	G vs N	0,012748	SEC23B
chr4p16.3	16	85	2	L vs N	0,012771	FGFR3
chr1q21.2	0	49	54	G vs N	0,012773	RAB13
chr19q13.33	3	85	15	G vs N	0,012775	TRPM4
---	1	60	42	G vs N	0,012835	---
chr15q23-q25	13	83	7	L vs N	0,012862	SCAMP2
chr7q11.23	7	83	13	G vs N	0,012862	PMS2L3
chr13q12	33	64	6	L vs N	0,012862	CDK8
chr14q11.2-q12	12	81	10	G vs N	0,012863	PARP2
chr18q21.1-q22	19	79	5	L vs N	0,012887	WDR7
chr17q25.3	6	77	20	G vs N	0,012889	RAB40B
chr10p15-p14	5	77	21	G vs N	0,012941	AKR1C2
chr4q21.22	16	87	0	L vs N	0,012941	ENOPH1
chr4q25	18	84	1	L vs N	0,012941	RRH
chr16q22.1- q22.3	26	75	2	L vs N	0,012941	FAM96B
chr11q13.5	10	78	15	G vs N	0,012941	SERPINH1
chr16p11.2	2	84	17	G vs N	0,012941	EIF3C /// EIF3CL
chr22q13.31- qter 22q13.2- q13.31	17	82	4	L vs N	0,012943	CYB5R3
chr10q24	15	86	2	L vs N	0,012963	FBXW4
chr16q13-q21	25	76	2	L vs N	0,012972	POLR2C
chr11q23	31	69	3	L vs N	0,013005	MLL
chr10q23	18	83	2	L vs N	0,013008	SMNDC1
chr18q12.2	14	79	10	L vs N	0,013008	C18orf10
chr4p13	26	76	1	L vs N	0,013008	RHOH
chr7p15	11	83	9	L vs N	0,013017	AHR
chr4p14	27	75	1	L vs N	0,013017	WDR19
chr21q22.1-	3	86	14	G vs N	0,013017	ITSN1

q22.2						
chr15q26.1	12	81	10	L vs N	0,013017	LOC400451
chr11q12-q13	11	87	5	L vs N	0,013073	NXF1
chr1q31.2-q31.3	0	65	38	G vs N	0,013133	GLRX2
chr19q13.42	3	88	12	G vs N	0,013133	ZNF444
chr4p16.1	18	84	1	L vs N	0,013133	MAN2B2
chr16q22.1	26	72	5	L vs N	0,013136	FLJ12331
chr16p13.3	3	84	16	G vs N	0,013141	TELO2
chr1p36.11	13	89	1	L vs N	0,013158	SRRM1
chr16p13.3	3	83	17	G vs N	0,013158	E4F1
chr1q32.1-q32.2	1	54	48	G vs N	0,013158	DTL
chr11p15.3-p14	20	80	3	L vs N	0,013158	TPH1
chr6p21.2	5	86	12	G vs N	0,013176	NUDT3
chr4p14	26	76	1	L vs N	0,013187	PDS5A
chr20p11.2-p11.22	6	82	15	G vs N	0,013188	ENTPD6
chr20q13.1	2	83	18	G vs N	0,013227	CTSA
chr17q21.3-q22	9	76	18	G vs N	0,013227	SFRS1
chr1p36.31	16	85	2	L vs N	0,013227	NOL9
chr3p21.1	15	85	3	L vs N	0,013265	NEK4
chr17q11	14	80	9	L vs N	0,013341	GOSR1
chr3q25	4	84	15	G vs N	0,013345	B3GALNT1
chr15q22.1	19	79	5	L vs N	0,013345	ALDH1A2
chr9q34.2	11	87	5	L vs N	0,01339	REXO4
chr4q21.23	17	86	0	L vs N	0,013412	WDFY3
chr3q29	3	84	16	G vs N	0,013427	BDH1
chr15q22.3-q23	13	83	7	L vs N	0,013427	BBS4
chr22q13.1-q13.2	17	83	3	L vs N	0,013438	SGSM3
chr11q13.4	10	79	14	L vs N	0,013438	SPCS2
chr14q23.1	17	81	5	L vs N	0,013461	ARID4A
chr22q12.2	14	84	5	L vs N	0,013501	NF2
chr11q25	36	66	1	L vs N	0,013501	NCAPD3
chr7q22	6	84	13	G vs N	0,013615	POP7
chr14q23.3	20	81	2	L vs N	0,013638	MPP5
chr15q21.2	20	77	6	L vs N	0,013638	GNB5
chr11p15.1	20	81	2	L vs N	0,013638	C11orf58
chrXp21.3	24	77	2	L vs N	0,013643	GK
chr14q24.3-q31	22	80	1	L vs N	0,013643	SPTLC2
chr10p14-p13	9	82	12	G vs N	0,01367	STAM
chr8p22	1	46	56	G vs N	0,013736	MTSS1
chr10q22.2	15	83	5	L vs N	0,013753	DNAJC9
chr20q13.12	2	82	19	G vs N	0,013764	UBE2C
chr22q11.21-q11.23 22q11.21	14	82	7	L vs N	0,013764	COMT
chr15q22.2	18	81	4	L vs N	0,013768	BNIP2
chr16p11.2	6	80	17	G vs N	0,013782	LYRM1
chr22q12.2	14	83	6	L vs N	0,013787	MORC2
chr22q12.2	14	83	6	L vs N	0,013787	LIMK2
chr1q25.3	0	63	40	G vs N	0,013791	RNF2
chr4p15.3	30	73	0	L vs N	0,013831	DHX15
chr3p21	14	85	4	L vs N	0,013869	UBE1L
chr15q21-q22	16	83	4	L vs N	0,013929	RORA
chr3q23	2	88	13	G vs N	0,013942	PLSCR1
chr3p14.1	21	80	2	L vs N	0,013956	FRMD4B
---	28	70	5	L vs N	0,013959	---
chr6p25-p24 18q21	20	78	5	L vs N	0,013971	ME2
chr1q22	0	50	53	G vs N	0,013971	PPOX
chr1q31.3	0	62	41	G vs N	0,013972	NEK7
---	10	74	19	G vs N	0,01399	---
chr18q21.33 18q21.3	18	79	6	L vs N	0,014017	BCL2
chr1p34.1	9	82	12	G vs N	0,014017	IPO13

chr3p24	20	79	4	L vs N	0,014026	TOP2B
chr4q34	21	78	4	L vs N	0,014026	CASP3
chr10q25	18	81	4	L vs N	0,014029	ABLIM1
chr1p36	13	89	1	L vs N	0,014086	RP5-886K2.1
chr6p21.1	5	85	13	G vs N	0,014088	PPP2R5D
chr11q21	19	77	7	L vs N	0,014107	ANKRD49
chr15q15.1	25	73	5	L vs N	0,014117	TMEM87A
chr6q22.31	16	77	10	G vs N	0,014144	HSF2
---	13	86	4	L vs N	0,01427	---
chr7p15.1	10	79	14	L vs N	0,01427	KIAA0644
chr7p14.3-p14.1	10	79	14	L vs N	0,01427	SCRN1
chr22q11.23	15	84	4	L vs N	0,014273	CABIN1
chr1p32-p31	12	84	7	L vs N	0,014287	JUN
chr16q24.3	23	74	6	L vs N	0,014326	DBNDD1
chr12p13.3	8	83	12	G vs N	0,014332	NDUFA9
chrXp22.2	26	75	2	L vs N	0,014332	GEMIN8
chr3p22	17	81	5	L vs N	0,014356	SLC4A7
chr10q23.31	20	82	1	L vs N	0,014356	RPP30
chr15q15.1	25	73	5	L vs N	0,014392	RPAP1
chr4p15.31	26	76	1	L vs N	0,014393	QDPR
chr20q11.21	1	86	16	G vs N	0,014531	DYNLRB1
chr16q22	28	73	2	L vs N	0,014558	APBP1
chr18p11.22	16	80	7	L vs N	0,014572	VAPA
chr5q33.3	12	86	5	L vs N	0,014576	MED7
chr7q11-q22	6	85	12	G vs N	0,014629	PMS2L2
chr22q13 22q13.33	17	83	3	L vs N	0,014638	ECGF1
chr4p16.3	18	84	1	L vs N	0,014646	C4orf8
chr22q13.33	18	83	2	L vs N	0,014646	BRD1
chr1q21	0	52	51	G vs N	0,014646	RFX5
chr1cen-q12	1	55	47	G vs N	0,014646	ADSS
chr16q12-q13	26	72	5	L vs N	0,014646	PHKB
chr1p22	11	89	3	L vs N	0,014646	CTBS
chr6q22-q23	14	79	10	G vs N	0,014684	TSPYL1
chr5q14.1	27	74	2	L vs N	0,014709	AP3B1
chr3q23	2	90	11	G vs N	0,014709	ATP1B3
chr5q35	6	86	11	G vs N	0,014729	MAML1
chr1p35.3	12	89	2	L vs N	0,014736	C1orf38
chr15q24	15	79	9	L vs N	0,014736	HMG20A
chr14q22.2	16	79	8	L vs N	0,014751	CGRRF1
chr4q31-q32	18	84	1	L vs N	0,014767	CTSO
chr9p21	24	70	9	L vs N	0,014767	MTAP
chr12q24.1	14	85	4	L vs N	0,014834	ISCU
chr20q13.3	2	75	26	G vs N	0,014835	PPP1R3D
chr22q13.31	17	84	2	L vs N	0,014879	ATXN10
chr10q24	17	84	2	L vs N	0,014879	HIF1AN
chr3p21.31	15	84	4	L vs N	0,014909	PRKCD
chr11p14	18	81	4	L vs N	0,014927	LIN7C
chr20q12-q13	2	83	18	G vs N	0,014927	KCNK15
chr7q11.23	6	84	13	G vs N	0,014962	GTF2I
chr8q22.1	1	56	46	G vs N	0,015043	PPM2C
chr16q22.1	26	74	3	L vs N	0,015058	THAP11
chr9q32	12	90	1	L vs N	0,015058	RGS3
chr10p15-p14	5	77	21	G vs N	0,01509	AKR1C1
chr11q23.3	31	69	3	L vs N	0,015097	UBE4A
chr21q22.3	4	80	19	G vs N	0,015111	BACE2
chr11p15.4	21	81	1	L vs N	0,015111	KIAA0409
chr9q34.1	13	87	3	L vs N	0,015111	DAPK1
chr12q21.1	15	82	6	L vs N	0,015111	RAB21
chr14q11.2	10	82	11	G vs N	0,015156	LRP10
chr4q32-q34	17	85	1	L vs N	0,015156	SC4MOL
chr17q25.3	6	74	23	G vs N	0,015156	SLC25A10
chr5q22-q23	24	78	1	L vs N	0,015198	REEP5

chr5q31	12	87	4	L vs N	0,015208	BRD8
chr22q13.1	17	83	3	L vs N	0,015215	CBX7
chr8p22	49	49	5	L vs N	0,015232	CTSB
chr5p15.33	3	84	16	G vs N	0,015235	EXOC3
chr16q22.1	27	73	3	L vs N	0,015272	DUS2L
chr22q13.2	16	81	6	L vs N	0,015286	D15Wsu75e
chr6p12-p11.1	6	84	13	G vs N	0,015318	PRIM2
chr16p13.3	3	82	18	G vs N	0,0154	METRNL
chr10q22.1	12	84	7	L vs N	0,0154	SAR1A
chr11q13.1-q13.2	5	80	18	G vs N	0,0154	CPT1A
chr7q11.23	8	83	12	G vs N	0,015463	PMS2L11
chr15q26.3	12	83	8	L vs N	0,015463	TM2D3
chr22q13.2	16	83	4	L vs N	0,015485	RBX1
chr10q25	20	79	4	L vs N	0,015485	RGS10
chr3p21.31-p21.2	14	85	4	L vs N	0,015515	BAP1
chr4q21	18	85	0	L vs N	0,015515	AFF1
chr7q11.23	7	83	13	G vs N	0,015515	GTF2I /// GTF2IP1 /// LOC100093631 /// LOC732437
chr17q23.2-q25.3	5	70	28	G vs N	0,015515	TK1
chr15q24.2	13	83	7	L vs N	0,015515	C15orf39
chr6q16.1	16	80	7	L vs N	0,015519	MANEA
chr10q25.2	18	83	2	L vs N	0,015519	ZDHHC6
chr15q15.1-q21.1	27	73	3	L vs N	0,015524	CAPN3
chr1p13.3-p13.1	5	82	16	G vs N	0,015528	WARS2
chr9q22.33	12	87	4	L vs N	0,015551	CDC14B
chr8q24	2	44	57	G vs N	0,015551	RAD21
chr4q21.1	13	88	2	L vs N	0,015582	VDP
---	25	77	1	L vs N	0,015588	---
chr12p13.31	5	86	12	G vs N	0,015608	LOC283345
chr1p36.3	16	85	2	L vs N	0,015621	UBE4B
chr3p21.33	13	84	6	L vs N	0,015638	GLB1
chr4q22.1	18	84	1	L vs N	0,015638	HERC6
chr16p12.3	5	82	16	G vs N	0,015673	SMG1
chr11q22-q23	34	67	2	L vs N	0,015685	DDX10
chr5q11	21	78	4	L vs N	0,015696	IL6ST
chr11q13.4	10	79	14	G vs N	0,015696	PPME1
chr7p11.1	10	80	13	G vs N	0,015712	FKBP9
chr1q24-q25	0	62	41	G vs N	0,015712	EDEM3
chr4q32.3	17	85	1	L vs N	0,015712	FLJ11184
chr10q24.32	15	85	3	L vs N	0,015741	FBXL15
chr22q13.33	17	83	3	L vs N	0,015802	NCAPH2
chr22q11.2	15	84	4	L vs N	0,015846	YPEL1
chr10p14-p13	9	82	12	G vs N	0,015846	PTPLA
chr14q32	19	77	7	L vs N	0,015904	VRK1
chr16q12.1	28	72	3	L vs N	0,015909	CYLD
chr10q26.3	16	85	2	L vs N	0,015909	ADAM8
chr5q11.2	19	80	4	L vs N	0,015962	PELO
chr3p22-p21.3	11	88	4	L vs N	0,015997	OXSRI
chr1p34	9	83	11	G vs N	0,015998	PTPRF
chr13q14.2	41	59	3	L vs N	0,016028	CDADC1
chr12q15	12	85	6	L vs N	0,016028	CNOT2
chr18q12.2	14	80	9	L vs N	0,016076	P15RS
chr3p21	15	85	3	L vs N	0,016076	NCKIPSD
chr16p13.3	4	82	17	G vs N	0,016161	HCFC1R1
chr12q14.3	11	85	7	L vs N	0,016161	MGC5370
chr6p21.3	5	85	13	G vs N	0,016161	C6orf47
chr6p21.2	5	85	13	G vs N	0,016161	KIAA0082
chr5q31	14	85	4	L vs N	0,016161	SKP1A

chr1q32	0	55	48	G vs N	0,016165	SNRPE
chr22q11.23	15	84	4	L vs N	0,016187	SNRPD3
chr1p31.3	12	82	9	L vs N	0,016251	USP1
chr16p13.1	6	81	16	G vs N	0,016251	ABCC1
chr4q21.1	13	88	2	L vs N	0,016254	SCARB2
chr15q26.1	13	81	9	L vs N	0,016254	MAN2A2
chr17q11.1-q11.2	17	78	8	L vs N	0,01638	TAF15
---	16	87	0	L vs N	0,016419	---
chr10q24-q25	15	85	3	L vs N	0,016419	LDB1
chr16q12	11	83	9	L vs N	0,016419	VPS35
chr1p36.13	15	85	3	L vs N	0,016419	NECAP2
chr11q13.4	10	79	14	L vs N	0,016419	FCHSD2
chr3q26.2-q26.3	2	81	20	G vs N	0,016419	USP13
chr3q29	2	84	17	G vs N	0,016419	CENTB2
chr22q13.33	17	83	3	L vs N	0,016446	SCO2
chr9q32	13	87	3	L vs N	0,016473	ROD1
chr8q24.11	2	45	56	G vs N	0,016473	EIF3H
chr21q22.13	4	82	17	G vs N	0,016498	DYRK1A
chr1p36.21	16	84	3	L vs N	0,016501	EFHD2
chr6p21.3	5	85	13	G vs N	0,016515	RXRΒ
chr10p15.3-p15.2	5	77	21	G vs N	0,016515	PFKP
chr14q24.3-q32.2	19	78	6	L vs N	0,016573	ATXN3
chr6p12.1	6	86	11	G vs N	0,016664	ZNF451
chrXp22.2	25	74	4	L vs N	0,016769	RBBP7
chr10p15-p14	5	78	20	G vs N	0,016803	AKR1C3
chr6q22.31	16	77	10	G vs N	0,016889	SERINC1
chr14q22	14	80	9	L vs N	0,016894	PTGER2
chr6p22.1	6	83	14	G vs N	0,016923	ABT1
chr9q22.1-q22.2	14	86	3	L vs N	0,016935	GADD45G
chr22q11 22q12.1	14	86	3	L vs N	0,016935	CHEK2
chr1p36.33	12	84	7	L vs N	0,016941	GNB1
chr22q12.1	16	85	2	L vs N	0,016959	TPST2
---	18	80	5	L vs N	0,016988	---
chr15q24.2	13	83	7	L vs N	0,017009	COMMD4
chr20q13.2-q13.3	0	73	30	G vs N	0,017019	CHRNA4
chr11q13.2	5	82	16	G vs N	0,017067	SUV420H1
chr10q25.3	18	83	2	L vs N	0,017095	XPNPEP1
chr12p13	6	86	11	G vs N	0,017102	NOL1
chr22q13.1-q13.2	17	83	3	L vs N	0,017143	APOBEC3G
---	18	81	4	L vs N	0,017143	---
chr11q12.3	11	87	5	L vs N	0,017155	MGC3196
chr11q12.3	11	87	5	L vs N	0,017155	GANAB
chr1p35.1-p34.3	11	87	5	L vs N	0,017155	KPNA6
chr21q21.1	10	80	13	L vs N	0,017159	ATP5J
chr5q12.1-q13.2	20	80	3	L vs N	0,01718	PLK2
chr7p14.3	10	82	11	G vs N	0,017237	KBTBD2
chr11q13.4 /// chr1p35.3	10	79	14	G vs N	0,017265	LOC653566 /// SPCS2
chr3q24-q25.1	2	85	16	G vs N	0,017293	GYG1
chr17q21.32	18	75	10	L vs N	0,017293	ITGB3
chr5q13	27	75	1	L vs N	0,017295	SMA4
---	11	83	9	L vs N	0,0173	---
chr12q24.11	13	85	5	L vs N	0,017316	SSH1
chr8q24.3	3	50	50	G vs N	0,017344	VPS28
chr20q11.21	1	85	17	G vs N	0,017344	BCL2L1
---	1	50	52	G vs N	0,017344	---
chr16q12.2-q21	26	72	5	L vs N	0,017462	GPR56
chr4q33	17	83	3	L vs N	0,017502	C4orf27
chr5q12.2-q13.3	27	75	1	L vs N	0,017639	SERF1A ///

/// chr5q13.2						SERF1B
chr11q13.2	5	81	17	G vs N	0,017668	CHKA
chr14q12	12	81	10	L vs N	0,017668	SCFD1
chr16q22.1	27	71	5	L vs N	0,017685	COG4
chr6p21.33	5	84	14	G vs N	0,017708	C6orf134
chr21q21.1	10	80	13	G vs N	0,017799	ATP5J
chr3q29	2	84	17	G vs N	0,017805	HRASLS
chr17p13.1	34	67	2	L vs N	0,017827	C17orf48
chr22q12 22q13.1	17	83	3	L vs N	0,017882	HMOX1
chr20p	11	85	7	L vs N	0,017939	ITPA
chr12q24.23	12	87	4	L vs N	0,017939	HSPB8
chr5q15-q21	26	76	1	L vs N	0,017943	CHD1
chr1q41	1	53	49	G vs N	0,017987	NSL1
chr15q13.3	25	74	4	L vs N	0,018031	CHP
chr16q13	25	76	2	L vs N	0,01804	COQ9
chr3q28	2	85	16	G vs N	0,018052	LPP
chr5q31	14	86	3	L vs N	0,018096	KIF3A
chr5q23	14	85	4	L vs N	0,018096	CAMLG
chr19q13.12	3	86	14	G vs N	0,018096	LOC644096
chr7q22.1	6	83	14	G vs N	0,018104	COPS6
chr4q13.3	13	90	0	L vs N	0,018123	ANKRD17
chr3p21.31	15	86	2	L vs N	0,018152	KLHL18
chr6p21.3	5	85	13	G vs N	0,018178	MDC1
chr22q13.33	17	83	3	L vs N	0,018263	TMEM112B
chr10p11.23	9	83	11	G vs N	0,018276	PAPD1
chr14q11.2-q13	9	83	11	G vs N	0,018276	PABPN1
chr8q13-q21.1	2	58	43	G vs N	0,01836	STAU2
chr1q32.1	0	54	49	G vs N	0,01836	ADORA1
chr8q24.3	2	52	49	G vs N	0,018454	JRK
chr1p36.22	16	85	2	L vs N	0,018458	VPS13D
chr11q13	6	84	13	G vs N	0,018477	YIF1A
chr12p13.31	6	86	11	G vs N	0,018489	TAPBPL
chr6p21.33	5	84	14	G vs N	0,018551	RPP21
chr5p15.3-p15.2	4	88	11	G vs N	0,018611	MTRR
chr12q24.1	11	88	4	L vs N	0,018611	PRKAB1
chr11p15.1	20	80	3	L vs N	0,018611	PSMA1
chr13q21.1-q32	36	61	6	L vs N	0,018622	CLN5
chr1q31.3	0	64	39	G vs N	0,018659	C1orf218
chr15q22.31	15	83	5	L vs N	0,018667	SNX1
chr22q11.21	15	83	5	L vs N	0,018667	DGCR2
chr4q25	19	83	1	L vs N	0,018723	TACR3
chr11q13.1	4	82	17	G vs N	0,018723	TMEM134
chr19q13.42	3	85	15	G vs N	0,018724	PRPF31
chr12p12	11	83	9	L vs N	0,018729	RECQL
chr1q22	0	52	51	G vs N	0,018729	PEX19
chr1p36.3	16	84	3	L vs N	0,018729	KCNAB2
chr14q11.2	10	82	11	L vs N	0,018729	RBM23
chr3p24	11	83	9	L vs N	0,018729	CAPN7
chr15q24.2	15	80	8	L vs N	0,018733	FBXO22
chr20p13	11	84	8	L vs N	0,018798	CENPB
chr18q21	20	76	7	L vs N	0,018844	NEDD4L
chr16p11.2	2	83	18	G vs N	0,018848	FUS
chr6q25-q27	24	72	7	L vs N	0,018864	WTAP
chr1q24	3	54	46	G vs N	0,018946	BLZF1
chr22q11.21	14	82	7	L vs N	0,018946	RANBP1
chr17q25.3	6	74	23	G vs N	0,018946	DUS1L
chr4q35.1	21	78	4	L vs N	0,018959	ING2
chr18q12.2	14	79	10	G vs N	0,018959	C18orf10
chr1q42-q43	0	55	48	G vs N	0,019002	GPR137B
chr14q11.2-q21	12	81	10	L vs N	0,019013	MAP4K5
chr13q14.2	41	59	3	L vs N	0,019013	NUDT15
chr4q22.1	17	86	0	L vs N	0,01909	FAM13A1

chr21q21.1	16	78	9	L vs N	0,019102	C21orf91
chr16q22.1	26	74	3	L vs N	0,019134	NUTF2
chr15q22 /// chr15q25.2	13	83	7	L vs N	0,019138	LOC161527 /// LOC652671 /// PML
chr6q15-q16	15	80	8	L vs N	0,01914	RRAGD
chr18q23	17	81	5	L vs N	0,01914	NFATC1
chr16q24	24	73	6	L vs N	0,019167	CYBA
chr10q25	18	83	2	L vs N	0,019209	DUSP5
chr17q25.3	6	76	21	G vs N	0,019216	NARF
chr10p15.1	5	78	20	G vs N	0,019227	C10orf18
chr6p22.2	6	84	13	G vs N	0,019303	THEM2
chr22cen-q12.3	15	86	2	L vs N	0,019311	HPS4
chr10q24.1	21	79	3	L vs N	0,019384	TM9SF3
chr12q14	11	87	5	L vs N	0,019462	GNS
chr12q24	12	85	6	L vs N	0,019465	SH2B3
chr19q13.1	2	88	13	G vs N	0,019465	CEBPA
chr12q	12	85	6	L vs N	0,019465	TRAFD1
chr15q11	17	82	4	L vs N	0,019465	CYFIP1
chr6p21.3-p21.1	5	85	13	G vs N	0,019465	MEA1
chr16q22.1	26	74	3	L vs N	0,019465	GFOD2
chr4p12	21	82	0	L vs N	0,019515	TEC
chr1q42.2	0	51	52	G vs N	0,019544	COG2
chr13q32.3	28	68	7	L vs N	0,019554	EBI2
chr10q22-q23	13	83	7	L vs N	0,019583	PPIF
chr6p21.3	7	83	13	G vs N	0,019583	ZNF165
chr9q22.33	13	86	4	L vs N	0,019586	C9orf97
chr4q31.3	16	86	1	L vs N	0,019608	TRIM2
chr16q13-q21	25	76	2	L vs N	0,019622	MMP15
chr16p11.2	2	84	17	G vs N	0,019629	BOLA2 /// LOC440354 /// LOC595101
chr6p24	9	83	11	G vs N	0,019703	DSP
chr8q24.3	2	48	53	G vs N	0,019716	NDRG1
chr3p21	13	87	3	L vs N	0,019733	SS18L2
chr13q22.2	38	61	4	L vs N	0,019733	TBC1D4
chr22q12.2	14	84	5	L vs N	0,019737	GAS2L1
chr14q11.2	10	82	11	L vs N	0,019737	C14orf94
chr11p15.4	19	80	4	L vs N	0,019802	ZNF143
chr17q21.2	18	79	6	L vs N	0,019805	RAB5C
chr10q24.1	18	82	3	L vs N	0,019806	FRAT2
chr15q26	14	81	8	L vs N	0,019806	ISG20
chrXq25-q26	17	82	4	L vs N	0,019808	RNF113A
chr12q24.13	11	86	6	L vs N	0,019825	TPCN1
chr14q23.1	17	81	5	L vs N	0,019914	C14orf108
chr20q13.1	2	83	18	G vs N	0,019935	YWHAB
chr5q14	28	74	1	L vs N	0,019943	GLRX
chr15q11.2-q21.3 15q21.1	25	74	4	L vs N	0,019972	SLC30A4
chr4q13.3	14	88	1	L vs N	0,020076	RUFY3
chr21q22.3	4	81	18	G vs N	0,020082	RRP1B
chr3p21.31	15	86	2	L vs N	0,020095	NBEAL2
chr18p11.2	16	81	6	L vs N	0,020095	MC2R
chr1p31	14	86	3	L vs N	0,020095	RABGGTB
chr2q11.2	7	69	27	G vs N	0,020162	ASCC3L1
chr3p22.3	13	84	6	L vs N	0,020162	UBP1
chr1q32.1 /// chr3q25.1	0	54	49	G vs N	0,020228	TMEM183A /// TMEM183B
---	0	78	25	G vs N	0,02024	---
chr15q25.1	13	82	8	L vs N	0,020337	KIAA1024
chr12q24	12	85	6	L vs N	0,020388	BRAP
chr4q25	18	84	1	L vs N	0,020462	CCDC109B
chr6p22.1	7	83	13	G vs N	0,020488	ZSCAN16
chr17p13.2	28	72	3	L vs N	0,020488	MINK1

chr11p15.5	19	82	2	L vs N	0,02049	CARS
chr16p13.3	3	83	17	G vs N	0,020503	KCTD5
---	7	84	12	G vs N	0,020504	---
chr21q22.11	7	84	12	G vs N	0,020504	USP16
chr5q13.3	27	74	2	L vs N	0,02051	TINP1
chr16p12.1	6	81	16	G vs N	0,02051	PALB2
chr21q22.3 21q22.2	12	81	10	G vs N	0,020539	HMGN1
chr1q25.2	0	63	40	G vs N	0,020539	C1orf25
chr16q24.3	24	73	6	L vs N	0,020555	SPG7
chr15q22.1-q22.2	19	79	5	L vs N	0,020562	AQP9
chr10q21	14	84	5	L vs N	0,020581	SGPL1
chr22q12.2	14	83	6	L vs N	0,020623	PIK3IP1
chr1p34	12	86	5	L vs N	0,02071	AK2
chr4q13	15	87	1	L vs N	0,02072	UGT2B17
chr1p36-p35	12	89	2	L vs N	0,020759	LDLRAP1
chr15q15	26	75	2	L vs N	0,020796	THBS1
chr16q21	28	72	3	L vs N	0,020828	FLJ10815
chr4q32.1	18	84	1	L vs N	0,020839	MAP9
chr1p22.1	11	87	5	L vs N	0,020874	MTF2
chr14q24.3	22	80	1	L vs N	0,020916	KIAA0317
chr4q21.1	18	85	0	L vs N	0,020975	MEPE
chr6q23.1-q24.1	21	72	10	L vs N	0,020975	CCDC28A
chr1q32.2	1	56	46	G vs N	0,02103	C1orf107
chr10q23-q25	22	79	2	L vs N	0,021048	IFIT2
chr10q23.1	16	83	4	L vs N	0,021085	TSPAN14
chr11p11.2	13	87	3	L vs N	0,021085	API5
chr1q42.1	1	54	48	G vs N	0,021092	FH
chr8p21-p12	49	50	4	L vs N	0,021152	EPHX2
chr16p13.1	5	81	17	G vs N	0,02118	LOC399491
chr1p34.1	9	83	11	G vs N	0,02126	LEPRE1
chr11p15.5	21	81	1	L vs N	0,021278	HBBP1
chr1p36.1	13	89	1	L vs N	0,021391	TCEB3
chr12q21.32	15	84	4	L vs N	0,021411	C12orf29
chr1p22.3	11	90	2	L vs N	0,021539	LMO4
chrXq28	16	83	4	L vs N	0,021553	MTMR1
chr16q22.1	26	74	3	L vs N	0,021555	LCAT
chr3q21-q25	3	84	16	G vs N	0,021585	TM4SF1
chr9q22.33	12	87	4	L vs N	0,021585	TDRD7
chr1p21.1 /// chr5q31.2	12	87	4	L vs N	0,021585	LOC727839 /// MATR3
chr1q41-q42	0	52	51	G vs N	0,02159	PARP1
chr14q23	17	81	5	L vs N	0,021593	PSMA3
chr15q14-q15	16	85	2	L vs N	0,021593	IVD
chr14q23.1	17	81	5	L vs N	0,021593	ACTR10
chr4q25	18	84	1	L vs N	0,021651	SEC24B
chr16q13	25	76	2	L vs N	0,021728	PLLP
chr14q12	12	81	10	G vs N	0,021739	SCFD1
chr13q32.1	29	66	8	L vs N	0,021751	MBNL2
chr17p13	31	70	2	L vs N	0,02185	TNFSF12
chr20p13	11	85	7	L vs N	0,021867	C20orf116
chr12p13	6	86	11	G vs N	0,021904	GAPDH
chr4q31.1	17	82	4	L vs N	0,021927	GALNT7
chr21q21.3	3	86	14	G vs N	0,021934	CRYZL1
chr14q24.3	20	80	3	L vs N	0,021938	C14orf169
chr20p11.22	10	82	11	L vs N	0,022014	RIN2
chr22q12.1-q12.2	14	84	5	L vs N	0,02204	RHBDD3
chr4p16	18	84	1	L vs N	0,022067	GRPEL1
chr10q21.3	13	84	6	L vs N	0,022111	DDX50
chr19p13.12 /// chr8q24.3	2	50	51	G vs N	0,02235	EEF1D /// EEF1DP1
chr8q24.3	2	50	51	G vs N	0,02235	OPLAH

chr16p12.1	6	81	16	G vs N	0,022377	DCTN5
chr15q25.1	13	82	8	L vs N	0,022377	ST20
chr12p13 /// chr12q13.2	8	84	11	G vs N	0,022411	LOC653441 /// PHC1
chr12q15	11	84	8	L vs N	0,022411	CCT2
chr13q14.3	42	58	3	L vs N	0,022419	RCBTB2
chr5q35.3	4	86	13	G vs N	0,022419	LMAN2
chr11q13.4	10	79	14	L vs N	0,02245	MRPL48
chr5q31.3-q32	14	85	4	L vs N	0,022486	H2AFY
chr5q13.1	23	76	4	L vs N	0,022516	PIK3R1
chr18q11.2	14	84	5	L vs N	0,022552	RIOK3
chr1p22	11	90	2	L vs N	0,022572	SH3GLB1
chr21q21.3	4	87	12	G vs N	0,02262	C21orf66
chr16p12.3	7	82	14	G vs N	0,022683	LOC400506
chr14q32.2	17	77	9	L vs N	0,022683	BCL11B
chr15q26.1	13	81	9	L vs N	0,022795	FURIN
chr13q14.2	42	58	3	L vs N	0,022798	RB1
chr1p36.13- p36.11	14	88	1	L vs N	0,022819	NBL1
chr6p24.3-p23	6	81	16	G vs N	0,02289	CCDC90A
chr14q24.2	22	80	1	L vs N	0,022913	PCNX
chr16q22.1	27	71	5	L vs N	0,022929	CDH3
chr9q22-q31	14	86	3	L vs N	0,022959	SEMA4D
chr6q24.2	24	69	10	L vs N	0,022964	STX11
chr14q11.2	10	82	11	G vs N	0,022968	PSMB5
chr19q13.4	3	84	16	G vs N	0,022979	RPS9
chr16p11.2	2	85	16	G vs N	0,022998	XPO6
chr13q14.1	41	58	4	L vs N	0,022998	FOXO1
chr11q23	31	69	3	L vs N	0,023005	CD3G
chr8q24.3	2	50	51	G vs N	0,023005	GRINA
chr7q31.3	11	85	7	L vs N	0,023005	WASL
chr15q22.2	18	81	4	L vs N	0,023037	GTF2A2
chr12p13.3	5	87	11	G vs N	0,023037	PEX5
chr1q21.3	0	49	54	G vs N	0,023037	ILF2
chr6q22.1	14	79	10	G vs N	0,023083	TSPYL4
chr13q14.3	41	59	3	L vs N	0,023186	ITM2B
chr1p36.11	13	88	2	L vs N	0,023187	WDTC1
chr1q25	0	65	38	G vs N	0,023187	CDC73
chr9p24-p22	20	73	10	L vs N	0,023187	MPDZ
---	2	85	16	G vs N	0,023187	---
chr1p35	12	89	2	L vs N	0,023285	RPA2
chrXp11.4-p11.2	15	82	6	L vs N	0,023313	ARAF
chr18pter-p11.2	16	82	5	L vs N	0,02334	ZFP161
chr13q12-q13	37	62	4	L vs N	0,023465	CG018
chr17q22-q23	6	70	27	G vs N	0,023471	SMURF2
chr15q24	13	83	7	L vs N	0,023593	IMP3
chr5q23.2	21	79	3	L vs N	0,023712	MARCH3
chr9p21	23	70	10	L vs N	0,023716	CDKN2A
chr1p13.3	13	88	2	L vs N	0,023716	GPSM2
chr8p23	47	50	6	L vs N	0,023716	CLN8
chr16p11.2	2	83	18	G vs N	0,023716	ZNF764
chr8q22	1	55	47	G vs N	0,023716	PTDSS1
chr17q21.31	18	79	6	L vs N	0,023733	STAT3
chr21q22.3	4	84	15	G vs N	0,023774	RUNX1
chr10q26	20	81	2	L vs N	0,023832	PTPRE
chr18q12	16	82	5	L vs N	0,023834	PSTPIP2
chr16q22.1	26	73	4	L vs N	0,023889	TERF2
chr10q23.2- q23.33	17	84	2	L vs N	0,023896	NDUFB8
chr17p11.2	20	79	4	L vs N	0,023896	ULK2
chr19q13	2	85	16	G vs N	0,023896	SIRT2
chr16p12.3	5	81	17	G vs N	0,02392	NOMO2
---	13	82	8	L vs N	0,023978	---

chr11p15.3	19	80	4	L vs N	0,023996	USP47
---	12	88	3	L vs N	0,02401	---
chr16q13	25	76	2	L vs N	0,024055	NIP30
chr12p12.3	13	83	7	L vs N	0,02411	DERA
chr1p36.12	13	88	2	L vs N	0,024231	AOF2
chr11q13	4	87	12	G vs N	0,024231	CTSF
chr4q21	14	88	1	L vs N	0,024246	AMBN
chr7q11.23	6	84	13	G vs N	0,024246	HSPB1
chr3q26.1	4	84	15	G vs N	0,02427	NMD3
chr15q22.2	16	81	6	L vs N	0,024312	VPS13C
chr4q21.1	14	87	2	L vs N	0,024333	CCNG2
chr1p36.31- p36.23	16	85	2	L vs N	0,02437	CAMTA1
chr12q23.2	13	85	5	L vs N	0,02437	DRAM
chr1p36	15	87	1	L vs N	0,024411	ALDH4A1
chr11q13	4	81	18	G vs N	0,024411	PPP1CA
chr19q13.3-qter	3	85	15	G vs N	0,02449	RRAS
chr7p14.3-p14.1	10	82	11	L vs N	0,024523	sept-07
chr9p22	21	72	10	L vs N	0,024591	MLLT3
chr8p21.1	46	53	4	L vs N	0,02464	ZNF395
chr1p32.1	12	85	6	L vs N	0,024646	HOOK1
chr16q22.1	26	74	3	L vs N	0,024649	PSMB10
chr16q22	26	74	3	L vs N	0,024649	FHOD1
chr16q24.3	24	73	6	L vs N	0,024666	GALNS
chr11q23 /// chr3q26.2 /// chr7q33	12	90	1	L vs N	0,024685	LOC641844 /// LOC647081 /// LOC651820 /// LOC730006 /// SDHD
chr13q34	16	79	8	L vs N	0,024793	UPF3A
chr13q12	35	63	5	L vs N	0,024828	ZMYM5
chr14q11.2	13	80	10	L vs N	0,024867	RNASE6
chr8q24.13	2	46	55	G vs N	0,024911	TRMT12
chr1q31-q32	0	55	48	G vs N	0,024921	LGTN
chr16q23.1	29	69	5	L vs N	0,024967	WDR59
chr12q23.3	14	85	4	L vs N	0,025064	PWP1
chr17p13.2	30	71	2	L vs N	0,025128	DVL2
chr9q32	13	87	3	L vs N	0,025232	FKBP15
chr4q21.1	13	88	2	L vs N	0,025369	CCNI
chr8q24-qter	4	51	48	G vs N	0,025369	PTK2
chr15q21-q22 /// chr15q22.2	18	80	5	L vs N	0,025369	LOC390588 /// MYO1E
chr13q12	34	62	7	L vs N	0,02537	SACS
chr10q24-qter	19	81	3	L vs N	0,02537	GRK5
chr6p24-p22.3	5	82	16	G vs N	0,02541	HIVEP1
chr4q21	16	87	0	L vs N	0,02541	FGF5
chr1p36.2	16	85	2	L vs N	0,02541	TNFRSF25
chr7p15	10	80	13	L vs N	0,02541	GARS
chr15q21	20	77	6	L vs N	0,02541	SCG3
chr8q24	1	46	56	G vs N	0,02541	RNF139
chr20q13.13	1	76	26	G vs N	0,02541	ZNF313
chr1p36.33- p36.21	12	84	7	L vs N	0,025499	NADK
chr16q24.1	27	72	4	L vs N	0,02558	IRF8
chr15q11.1	26	73	4	L vs N	0,025611	EHD4
chr22cen-q12.3	14	84	5	L vs N	0,025739	ZMAT5
chr12p13.33	5	84	14	G vs N	0,025739	ITFG2
chr3p21.3	14	84	5	L vs N	0,025739	SEMA3F
chr1q24-q25.3	4	56	43	G vs N	0,025739	KIAA0859
chr6q25.3	24	72	7	L vs N	0,025774	MRPL18
chr21q22.3	4	82	17	G vs N	0,025775	RIPK4
chr8p22-p21	52	49	2	L vs N	0,025818	DPYSL2
chr3p21.31	13	88	2	L vs N	0,02588	EXOSC7
chr1q44	1	54	48	G vs N	0,02588	C1orf121

chr12q13	16	87	0	L vs N	0,025911	BIN2
chr15q21.3	18	81	4	L vs N	0,025911	GCNT3
chr22q13.2	16	82	5	L vs N	0,025911	EP300
chr17p13.1	30	71	2	L vs N	0,025911	CLEC10A
chr4q26-q27	17	86	0	L vs N	0,025927	FGF2
chr1p36.13	15	87	1	L vs N	0,025968	OTUD3
chr11q14	18	77	8	L vs N	0,02603	CREBZF
chr12p12.1	11	83	9	L vs N	0,026032	PYROXD1
chr10q24.32	15	85	3	L vs N	0,02605	PPRC1
chr18q23	20	78	5	L vs N	0,02605	MBP
chr3p21.31	15	85	3	L vs N	0,02605	IHPK2
chr1q21.1	1	53	49	G vs N	0,026154	PEX11B
chr16q13	25	76	2	L vs N	0,026172	CX3CL1
chr10q21.1-q21.2	14	84	5	L vs N	0,026232	ANXA7
chr15q22.31	14	84	5	L vs N	0,026232	TRIP4
---	15	86	2	L vs N	0,026266	---
chr14q24.3	21	79	3	L vs N	0,026386	FUT8
chr4q13-q21	16	85	2	L vs N	0,026386	IL8
chr18q23	15	84	4	L vs N	0,026386	C18orf22
chr1p36.11	13	88	2	L vs N	0,026386	ZDHHC18
chr22q12	16	83	4	L vs N	0,026386	MFNG
chrXq21.33-q22.2	21	78	4	L vs N	0,026396	ARMCX2
chr18q11.2	12	85	6	L vs N	0,026411	ABHD3
chr13q14.11	40	60	3	L vs N	0,026516	MGC5590
chr11q13.4 /// chr1p35.3	10	79	14	L vs N	0,026516	LOC653566 /// SPCS2
chr18q21.3-q22	20	78	5	L vs N	0,026517	LMAN1
chr4q21-q23	18	83	2	L vs N	0,026539	ADH1A
chr7q11.23	9	82	12	G vs N	0,026547	PTPN12
chr17q23.3	4	69	30	G vs N	0,026552	ACE
chr20p13	11	85	7	L vs N	0,026596	MGC3260
chr18p11.32	11	83	9	L vs N	0,026637	TYMS
chr6p21.3	7	84	12	G vs N	0,026638	ZNF184
chr1q21	0	51	52	G vs N	0,026638	CTSK
chr11q13.4	10	79	14	G vs N	0,026805	FCHSD2
chr10p14	7	79	17	G vs N	0,026857	ECHDC3
chr17q25.1	6	70	27	G vs N	0,026887	KIAA0195
chr22q13.1	16	83	4	L vs N	0,026896	PLA2G6
chr11p15.5	22	79	2	L vs N	0,026907	NUP98
chr18p11.21	16	80	7	L vs N	0,026917	MPPE1
chr3q23-q24	2	88	13	G vs N	0,026917	PLOD2
chr15q22-qter	13	83	7	L vs N	0,026931	MPI
chr17q21	20	75	8	L vs N	0,026931	DUSP3
chr18q11.2	13	83	7	L vs N	0,026931	SS18
chr18q21	19	79	5	L vs N	0,026931	MBD1
chr4q13.3	15	87	1	L vs N	0,026931	SULT1B1
chr16p13.3	3	83	17	G vs N	0,026942	GBL
chr22q11.2	15	82	6	L vs N	0,026944	EIF4ENIF1
chr16q13	26	76	1	L vs N	0,026981	OGFOD1
chr16q22	28	70	5	L vs N	0,02701	DHODH
chr17p13.1	30	71	2	L vs N	0,02701	C17orf81
chr1q31	1	60	42	G vs N	0,027063	LAMC1
chr17q25.3	7	73	23	G vs N	0,027071	DCXR
chr1q31-q32	1	53	49	G vs N	0,027153	PCTK3
chr21q22.3	4	82	17	G vs N	0,027153	PFKL
chr6q13-q21	13	86	4	L vs N	0,027232	TTK
chr17q25.3	6	77	20	G vs N	0,027264	TBCD
chr7q11.2	5	86	12	G vs N	0,027289	ZNF107
chr4q34.1-q35.1	22	77	4	L vs N	0,0273	IRF2
chr21q22.2	4	84	15	G vs N	0,027368	PIGP
chr4q34	18	82	3	L vs N	0,027379	GPM6A

chr6p21.3	6	82	15	G vs N	0,027538	HIST1H4C
---	27	74	2	L vs N	0,02754	---
chr14q24.3-q31	22	80	1	L vs N	0,027555	MAP3K9
chr8p21.3	52	49	2	L vs N	0,027564	R3HCC1
chr12q24.12	12	85	6	L vs N	0,027564	ACAD10
chr10q24.32	15	85	3	L vs N	0,027564	CUEDC2
chr8p23-p21	51	49	3	L vs N	0,027564	EGR3
chr14q24.1 7q34	20	79	4	L vs N	0,027578	ERH
chr20q13.3	0	74	29	G vs N	0,027733	ARFRP1
chr19q13.3	4	88	11	G vs N	0,027736	SEPW1
chr16p13.2	4	80	19	G vs N	0,027788	ABAT
chr11p15.3 /// chr20p13	11	86	6	L vs N	0,027806	CSNK2A1 /// CSNK2A1P
chr16q24.3	24	73	6	L vs N	0,027809	CDT1
chr9q22.31	14	84	5	L vs N	0,027845	BICD2
chr3q25.1-q26.1	2	85	16	G vs N	0,027856	HLTF
chr11q23.3	30	71	2	L vs N	0,027859	DPAGT1
chr17q11.2	14	79	10	G vs N	0,027859	SUZ12P
chr1pter-q31.3	9	83	11	G vs N	0,027862	FOXJ3
chr14q11.2	11	82	10	L vs N	0,027878	NDRG2
---	34	63	6	L vs N	0,027878	MRP63
chr15q15	24	75	4	L vs N	0,027878	GCHFR
chr6p23	6	81	16	G vs N	0,027878	SIRT5
chr11q24	35	66	2	L vs N	0,027889	EI24
chr1q21-q22	0	53	50	G vs N	0,027947	DUSP12
chr6q24	21	72	10	L vs N	0,027978	HEBP2
chr4q35	20	79	4	L vs N	0,028028	TLR3
chr4q26	18	85	0	L vs N	0,028044	SEC24D
chr11p13	12	83	8	L vs N	0,028049	HIPK3
chr16p12-p11.2	7	82	14	G vs N	0,02805	MIR16
chr19q13.2- q13.4	3	86	14	G vs N	0,02807	NUCB1
chr4q12	14	86	3	L vs N	0,02807	POLR2B
chr7q22	6	84	13	G vs N	0,028166	SLC12A9
chr1q42.12	2	84	17	G vs N	0,028205	ENAH
chr7cen-q11.2	5	85	13	G vs N	0,028254	ASL
chr4q31.3	16	86	1	L vs N	0,028293	LRBA
chr4q21.21	16	86	1	L vs N	0,028293	BMP2K
chr11q12-q13	11	88	4	L vs N	0,028293	OSBP
chr22q11.1- q11.2 /// chr22q11.2	16	85	2	L vs N	0,028313	IGL@ /// IGLJ3 /// IGLV2-14 /// IGLV3-25
chr14q32	15	78	10	L vs N	0,028325	EML1
chr16p13.3	3	84	16	G vs N	0,028328	PPL
chr6p21.2	5	84	14	G vs N	0,028328	PIM1
chr15q25.2	13	80	10	L vs N	0,028346	ALPK3
chr16p11.2	2	83	18	G vs N	0,028352	PRSS8
chr12p13	5	86	12	G vs N	0,028412	LRRC23
chr8p11.2-p11.1	6	67	30	G vs N	0,028463	CEBPD
chr14q32.13	19	78	6	L vs N	0,028463	GLRX5
chr6q25.3	23	74	6	L vs N	0,028471	ZDHHC14
chr19q13.33	3	86	14	G vs N	0,028637	PPFIA3
---	20	80	3	L vs N	0,028653	---
chr10q22.1	12	83	8	L vs N	0,028673	SRGN
chr1q21.3	0	52	51	G vs N	0,028752	SNX27
chr15q26.3	14	81	8	L vs N	0,028793	IL16
chr13q12.3-q13	37	62	4	L vs N	0,028824	RFC3
chr9q22.2	14	84	5	L vs N	0,02897	SPTLC1
chr22q11.21	15	84	4	L vs N	0,028998	SDF2L1
chr3p21.3-p21.1	13	87	3	L vs N	0,029051	QARS
chr15q26	13	80	10	L vs N	0,029051	SLCO3A1
chr17q11.2	16	79	8	L vs N	0,029093	NF1
chr5q12-q13	24	76	3	L vs N	0,029139	KIF2A

chr9q22.33	13	85	5	L vs N	0,0292	TRIM14
chr22q11 22q11.23	15	85	3	L vs N	0,029206	BCR
chr19q13.3	3	86	14	G vs N	0,02925	SNRP70
chr10p11.2	10	82	11	G vs N	0,02925	SVIL
chr19q12 /// chr3p22.2	3	86	14	G vs N	0,02925	POLR2I /// RPSA
chr12q21.33-q23.1	14	86	3	L vs N	0,02925	CRADD
chr6q27	25	72	6	L vs N	0,02925	RPS6KA2
chr17q11.2	14	79	10	G vs N	0,029327	NF1
chr20q13.31	1	75	27	G vs N	0,029401	RBM38
chr22q11.1-q11.2 /// chr22q11.2	16	85	2	L vs N	0,029446	IGL@ /// IGLV2-14 /// IGLV3-25 /// IGLV4-3
---	20	79	4	L vs N	0,02962	---
chr6p21.1	5	84	14	G vs N	0,02962	ABCC10
chr16p13.11	6	81	16	G vs N	0,029642	LOC339047
chr6p23	6	81	16	G vs N	0,029642	NOL7
chr17p13.3	28	72	3	L vs N	0,029677	MYBBP1A
chr5q33.1-q33.3	11	87	5	L vs N	0,029735	MRPL22
chr5q23.1-q33.3	11	87	5	L vs N	0,029735	CLINT1
chr17p11.2	22	77	4	L vs N	0,029742	SHMT1
chr12q15 /// chr19p12 /// chr1p21.1 /// chr3p22.2 /// chrXq22.1	14	83	6	L vs N	0,029775	LOC387867 /// LOC388524 /// LOC643617 /// LOC648249 /// LOC730029 /// RPSA
chr20q13.33	0	78	25	G vs N	0,029843	SOX18
chr21q22.3	4	82	17	G vs N	0,029852	POFUT2
chr16q22.1	27	72	4	L vs N	0,029892	PDPR
chr4p16.1	19	83	1	L vs N	0,029892	SH3TC1
chr7p21.3	11	84	8	L vs N	0,029892	TMEM106B
chr1p34	11	84	8	L vs N	0,029892	LRP8
chr11q13.1	4	81	18	G vs N	0,02993	CORO1B
chr1q23	2	50	51	G vs N	0,029993	PBX1
chr17q11.2	19	79	5	L vs N	0,030017	MAP2K3
chr22q11.1-q11.2 /// chr22q11.2	16	85	2	L vs N	0,030024	IGL@ /// IGLJ3 /// IGLV2-14 /// IGLV3-25 /// IGLV4-3
chr13q14.12	41	59	3	L vs N	0,030024	SLC25A30
chr14q21-q22	12	81	10	L vs N	0,030035	PYGL
chr1q32	0	55	48	G vs N	0,030035	SOX13
chr17q25	6	74	23	G vs N	0,030076	MRPL12
chr10q24-q25	17	83	3	L vs N	0,030101	CHUK
chr22q13.1-q13.2	16	83	4	L vs N	0,030101	MICALL1
chr16p13-p11 /// chr16p13.11	6	81	16	G vs N	0,030211	LOC339047 /// LOC642799 /// NPIP
chr1q43	0	56	47	G vs N	0,030211	HEATR1
chr12q22	13	87	3	L vs N	0,030326	NR2C1
chr16q22	26	74	3	L vs N	0,03035	TRADD
chr19q13.11	2	88	13	G vs N	0,030413	LRP3
chr4q21	13	89	1	L vs N	0,030487	CXCL6
chr4q13-q21 /// chr4q13.3	13	89	1	L vs N	0,030487	AREG /// LOC727738
chr15q25.3	13	82	8	L vs N	0,030626	PDE8A
chr15q26	12	81	10	G vs N	0,03066	MEF2A
chr4p16.3	18	84	1	L vs N	0,03066	HD
chr7q11.23	7	83	13	G vs N	0,030697	GTF2IRD1
chr4q31.22	17	85	1	L vs N	0,030718	LSM6
chr6p21.3 /// chr6p21.33	5	85	13	G vs N	0,03084	C6orf26 /// MSH5
chr12q24.13	12	85	6	L vs N	0,03084	ERP29

chr9q22.3	12	87	4	L vs N	0,03084	TMOD1
chr8q24.3	2	50	51	G vs N	0,030846	LY6E
chr13q14	41	59	3	L vs N	0,030926	CKAP2
chr19q13.4	3	85	15	G vs N	0,03107	TSEN34
chr17p13.1	32	69	2	L vs N	0,031072	C17orf68
chr5q35.3	4	88	11	G vs N	0,031085	DBN1
chr4p14	26	76	1	L vs N	0,031085	C4orf34
chr19q13.2	4	88	11	G vs N	0,031085	APOC2 /// APOC4
chrXq22-q24	18	83	2	L vs N	0,031088	MCTS1
chr14q21.1	17	76	10	G vs N	0,031088	PNN
chr5q31	14	86	3	L vs N	0,031088	AFF4
chr6q26-q27	26	72	5	L vs N	0,031088	QKI
chr11q13.4	10	79	14	G vs N	0,031088	MRPL48
chr14q24.2	21	80	2	L vs N	0,031088	SYNJ2BP
chr11q13.4	10	79	14	G vs N	0,031088	PAAF1
chr19q13.42	3	86	14	G vs N	0,031088	HSPBP1
chr22q11.23	14	86	3	L vs N	0,031088	MIF
chr10q24.2-q24.3	18	83	2	L vs N	0,031088	ADD3
chr8q21	2	56	45	G vs N	0,031126	NBN
chr14q22.1	13	81	9	L vs N	0,031131	ERO1L
chr13q13.3	39	59	5	L vs N	0,031159	ALG5
chr1q12	0	78	25	G vs N	0,031191	LOC727942 /// PDE4DIP
chr1q21.1	0	78	25	G vs N	0,031191	NBPF10
chr3p24.2	19	81	3	L vs N	0,031254	UBE2E1
chr16q23.1	29	68	6	L vs N	0,031351	TERF2IP
chr14q11.1	11	83	9	L vs N	0,031376	METTL3
chr22q11.23	14	84	5	L vs N	0,031423	CTA-246H3.1
chr15q23	12	87	4	L vs N	0,031423	MAP2K5
chr6p21.3	5	85	13	G vs N	0,031423	PFDN6
chr6p21.3	5	84	14	G vs N	0,031423	RDBP
chr22cen-q12.3	14	84	5	L vs N	0,031423	UCRC
chr10q24.31	17	84	2	L vs N	0,031481	SEC31B
chr3p21.3	15	85	3	L vs N	0,03155	UQCRC1
chr9q22.1-q22.3	13	87	3	L vs N	0,03155	SPIN1
chr9q33	13	88	2	L vs N	0,031625	POLE3
chr11q22-q23	33	69	1	L vs N	0,031645	ATM /// LOC651610
chr11p15.5	22	79	2	L vs N	0,031676	RRM1
chr4q26	16	85	2	L vs N	0,031727	ARSJ
chr5q12.2-q13.3 /// chr5q13.2	27	75	1	L vs N	0,031727	DKFZP686M019 9 /// GTF2H2 /// LOC728340 /// LOC730394
chr1p36.11	12	90	1	L vs N	0,031751	RHD
chr11q13	10	79	14	G vs N	0,031775	UCP3
chr11q13.4	3	83	17	G vs N	0,031798	NADSYN1
chr1p36.1	15	87	1	L vs N	0,031939	DDOST
chr11q24-q25	37	65	1	L vs N	0,031949	ST14
chr15q24.1	13	83	7	L vs N	0,031991	EDC3
chr18p11.21	16	81	6	L vs N	0,032041	CEP192
chr10q22.1	11	84	8	L vs N	0,032051	SUPV3L1
chr6p22.1	6	84	13	G vs N	0,032051	BTN2A1
chr9q34.11	12	87	4	L vs N	0,032133	TBC1D13
chr5q31	12	87	4	L vs N	0,032133	C5orf5
chr1p21.3-p13.1 1p21.3-p13.1	13	86	4	L vs N	0,032163	SORT1
chr13q14.12	41	59	3	L vs N	0,032178	ZC3H13
chr14q31-q32	19	79	5	L vs N	0,032216	TRIP11
chr8q24.13	1	45	57	G vs N	0,032216	KIAA0196
chr9q31-q33	13	87	3	L vs N	0,032216	PRPF4
chr10q	20	79	4	L vs N	0,032274	TIAL1

chr17p11.2	26	74	3	L vs N	0,032274	TRIM16 /// TRIM16L
chr7q22	6	83	14	G vs N	0,032282	ZKSCAN5
chr11q23.3	30	71	2	L vs N	0,032321	TMEM24
chr8q21	50	50	3	L vs N	0,032331	POLR3D
chr17q25.1- q25.2	7	69	27	G vs N	0,032388	MXRA7
chr5q33-qter	4	88	11	G vs N	0,032388	F12
chr12p11.21 /// chr1p31.3	12	84	7	L vs N	0,032482	AK3L1 /// AK3L2 /// LOC645619
chr17p13.3	28	72	3	L vs N	0,032491	YWHAE
chr7p14-p11.2	8	84	11	G vs N	0,032789	C7orf25
chr6p21.3	5	85	13	G vs N	0,032789	CCHCR1
chr4p15.2	30	73	0	L vs N	0,032789	RBPJ
chr1p13.3	13	85	5	L vs N	0,032789	AMPD2
---	16	85	2	L vs N	0,032959	---
chr16q22.1	26	73	4	L vs N	0,032982	VPS4A
chr19q13.11- q13.12	3	86	14	G vs N	0,033004	TBCB
chr10q24.1- q25.1	17	83	3	L vs N	0,033006	GOT1
chr3p12-p11.1	17	81	5	L vs N	0,033079	CGGBP1
chr17q25.1	6	70	27	G vs N	0,033113	CDR2L
chr6q22.2	14	79	10	L vs N	0,033211	KPNA5
chr6p12	5	87	11	G vs N	0,033261	MCM3
chr15q24.3	15	80	8	L vs N	0,033261	SGK269
chr18q21.3	18	79	6	L vs N	0,033334	FVT1
chr8p22-p21.3	49	50	4	L vs N	0,033351	FGL1
chr15q22.3-q23	13	83	7	L vs N	0,033395	SEMA7A
chr4q13-q21	16	87	0	L vs N	0,033395	HNRPD
chr3q26.2	1	84	18	G vs N	0,033428	TLOC1
chr3p24.3	14	84	5	L vs N	0,033433	RFTN1
chr1p35	12	89	2	L vs N	0,033473	PPP1R8
chr1p35-p34.1	12	89	2	L vs N	0,033473	STX12
chr6p21.1	5	85	13	G vs N	0,033473	KIAA0240
chr11q13.3- q13.5	10	78	15	G vs N	0,033541	RPS3
chr3q29	3	80	20	G vs N	0,033541	TFRC
chr19q12-q13.2	2	88	13	G vs N	0,033592	PEPD
chr20q11.21	1	81	21	G vs N	0,033664	SPAG4
chr1p36.12	15	87	1	L vs N	0,033779	C1orf166
chr9p13.2	17	77	9	L vs N	0,033835	WDR32
chr18q21.1	16	82	5	L vs N	0,033835	PIAS2
chr8p23.1	48	50	5	L vs N	0,033868	MFHAS1
chr11q13	11	88	4	L vs N	0,033877	RTN3
chr16q24.3	24	73	6	L vs N	0,033939	CHMP1A
chr10q22.2	12	84	7	L vs N	0,033939	KIAA0913
chr14q31-q32.1	19	79	5	L vs N	0,033963	RPS6KA5
chr17q21.31	20	74	9	L vs N	0,03397	GPATCH8
chr8p22	49	50	4	L vs N	0,03397	NAT2
chr17p11.2	26	73	4	L vs N	0,03397	DRG2
chr10q24.32	15	85	3	L vs N	0,034034	NOLC1
chr20p13	11	86	6	L vs N	0,034034	RBCK1
chr3p22.3	13	84	6	L vs N	0,034057	DYNC1L1
chr11q13.5-q14	8	79	16	G vs N	0,034057	LRRC32
chr1p36.23	16	85	2	L vs N	0,034083	VAMP3
chr3q21-q25	2	85	16	G vs N	0,034083	TM4SF1
chr1p21.2	13	87	3	L vs N	0,034156	DPH5
chr8q21.3	2	56	45	G vs N	0,034156	DEC1
chr13q12-q13	31	66	6	L vs N	0,034242	UBL3
chr1p33-p32.1	11	84	8	L vs N	0,034247	LRRC42
chr10q24	21	79	3	L vs N	0,034466	FER1L3
chr16q24	24	73	6	L vs N	0,034482	APRT
chr17q12-q23.2	18	77	8	L vs N	0,034482	CDC27

chr12q23	12	88	3	L vs N	0,034498	APAF1
chr1q31	2	60	41	G vs N	0,034498	GLUL
chr13q12-q14	31	66	6	L vs N	0,034498	SLC7A1
chr22q11.2-q13.31 22q13.2-q13.31	16	81	6	L vs N	0,034498	ACO2
chr10q26.13	19	81	3	L vs N	0,034669	KIAA0157
chr22q11.1-q11.2	16	85	2	L vs N	0,034698	IGLJ3
chr22q11.1-q11.2	16	85	2	L vs N	0,034698	IGL@
chr17q12	17	78	8	L vs N	0,034698	ZNHIT3
chr22q12.2	14	84	5	L vs N	0,034698	EWSR1
chr15q15.1	24	74	5	L vs N	0,03471	SPINT1
chr6p21.3-p21.1	6	84	13	G vs N	0,034728	GLO1
chr7q21.11	5	85	13	G vs N	0,034766	GUSB
chr1p35.3	12	89	2	L vs N	0,034766	GMEB1
chr1q41	0	56	47	G vs N	0,034788	DUSP10
chr10p13	9	78	16	G vs N	0,034797	FRMD4A
chr11p15	21	79	3	L vs N	0,035001	TSG101
chr1q21	0	52	51	G vs N	0,035001	MCL1
chrXp21.3	22	77	4	L vs N	0,035033	ZFX
chr9q13	16	82	5	L vs N	0,035033	KLF9
chr4q21.22	16	87	0	L vs N	0,035103	SEC31A
chr8q24.3	2	50	51	G vs N	0,035119	TSTA3
chr14q11.2-q12	9	83	11	G vs N	0,035134	EFS
chr18q12.1	14	82	7	L vs N	0,03516	RNF138
chr10q24.1-q24.3	15	85	3	L vs N	0,035314	MGEA5
chr18p11.31-p11.2	16	79	8	L vs N	0,035401	NDUFV2
chr6p21.1	5	84	14	G vs N	0,035401	TJAP1
chr14q31	19	78	6	L vs N	0,035401	ITPK1
chr15q24.1	13	83	7	L vs N	0,035429	ADPGK
chr13q22	36	61	6	L vs N	0,035429	MYCBP2
chr15q	13	83	7	L vs N	0,035429	AP3B2
chr8p21.3	50	50	3	L vs N	0,035459	RAI16
chr17p13-p12	27	73	3	L vs N	0,035459	ZNF232
chr13q12	33	63	7	L vs N	0,035466	MIPEP
chr1q23.1	1	51	51	G vs N	0,035499	ISG20L2
chr8p23	47	50	6	L vs N	0,035511	ARHGEF10
chr17q25.1	7	73	23	G vs N	0,035511	SUMO2
chr1p22.1	11	86	6	L vs N	0,035511	GCLM
chr22q13.1	16	83	4	L vs N	0,035516	SOX10
chr17p13	29	72	2	L vs N	0,03554	GEMIN4
chr1p36.1-p35	15	87	1	L vs N	0,03554	RAP1GAP
chr15q15.1 /// chr18p11.31	14	83	6	L vs N	0,035581	LOC645094 /// MRCL3
chr4q23-q25	18	84	1	L vs N	0,035623	LEF1
chr4q25	18	84	1	L vs N	0,035623	PPA2
chr11q12	6	85	12	G vs N	0,035624	RAB1B
chr8q24.22	1	50	52	G vs N	0,035646	ST3GAL1
chr10p13	9	79	15	G vs N	0,035655	RPP38
chr22q12	17	85	1	L vs N	0,035808	APOL2
chr20q11.2	1	85	17	G vs N	0,035808	TPX2
chr17p13.3	28	73	2	L vs N	0,035842	ABR
chr12q24.21	12	86	5	L vs N	0,035972	THRAP2
chr15q21.2	23	74	6	L vs N	0,036012	GABPB2
chr14q22.2	16	79	8	L vs N	0,036012	GMFB
chr15q25-q26	14	81	8	L vs N	0,036093	ANPEP
chr4p16.3	19	82	2	L vs N	0,036093	PCGF3
chr10q24	21	79	3	L vs N	0,036093	ENTPD1
chr15q26.1	14	81	8	L vs N	0,036093	PEX11A
chr4p14	25	77	1	L vs N	0,036139	PDS5A

chr8q22.1	1	56	46	G vs N	0,03629	RBM12B
chr9q34.11	12	87	4	L vs N	0,03629	GLE1L
chr4q13.3-q21.1	14	88	1	L vs N	0,036366	DCK
chr4q13.3	14	88	1	L vs N	0,036366	SAS10
chr11p15	20	82	1	L vs N	0,036522	TRIM5
chr11p13	12	83	8	L vs N	0,036558	CSTF3
---	21	80	2	L vs N	0,036558	---
chr10q24.32	15	85	3	L vs N	0,036625	C10orf26
chr10q26	19	80	4	L vs N	0,036697	TACC2
chr4q35	19	80	4	L vs N	0,036697	PDLIM3
chr9q12-q21.2 9q12-q21.2	12	86	5	L vs N	0,036779	ANXA1
chr6q25-q26	23	72	8	L vs N	0,0368	TULP4
chr9q21.31	11	88	4	L vs N	0,036821	TLE4
chr4q28.1	18	85	0	L vs N	0,036867	SLC25A31
chr11q13.4	10	79	14	L vs N	0,036867	CHCHD8
chr1p36.33-p36.2	12	84	7	L vs N	0,036869	PRKCZ
chr4q25	18	84	1	L vs N	0,036869	ELOVL6
chr15q24-q25	14	81	8	L vs N	0,036869	CTSH
chr17q21	19	77	7	L vs N	0,036878	AOC2
chr15q24-q26	13	83	7	L vs N	0,036878	TM6SF1
chr1p36.11	13	88	2	L vs N	0,036943	ATPBD1B
chr5p15.1-p14	5	83	15	G vs N	0,037024	TRIO
chr12q23-q24.1	14	85	4	L vs N	0,037233	PRDM4
chr8p22-p21.3	48	51	4	L vs N	0,037233	SLC7A2
chr1p36.31	16	85	2	L vs N	0,037289	KLHL21
chr20q13.33	0	78	25	G vs N	0,037317	TCEA2
chr16q24.3	24	73	6	L vs N	0,037328	FAM38A
chr16q21-q22.3	28	70	5	L vs N	0,037415	DHX38
chr20q11.22	1	84	18	G vs N	0,037565	TRPC4AP
chr14q24.1	20	80	3	L vs N	0,037612	RDH11
chr10q25.3	18	82	3	L vs N	0,037612	NHLRC2
chr15q21.3 /// chr15q22.1 /// chr4q13.2	19	79	5	L vs N	0,037647	Gcom1 /// GRINL1A /// LOC339970
chr4q13.3-q21.3	13	89	1	L vs N	0,037656	DKFZP564O0823
chr6p21.3	6	84	13	G vs N	0,037656	TAP2
chr4q21	13	89	1	L vs N	0,037656	CXCL2
chr13q13.3	41	57	5	L vs N	0,037656	C13orf23
chr8q24.12	3	44	56	G vs N	0,037656	DCC1
chr17q21.32	20	73	10	L vs N	0,037656	GRN
chr10q26.11	19	81	3	L vs N	0,037656	C10orf84
chr3p22.1	13	88	2	L vs N	0,037656	SNRK
chr7q11.23	7	83	13	G vs N	0,037656	CLDN3
chr1p36.11	13	88	2	L vs N	0,037656	SFN
chr14q21.3	11	82	10	L vs N	0,037753	ARF6
chr3p22.3	14	83	6	L vs N	0,037763	OSBPL10
chr1p36.13-q41	0	55	48	G vs N	0,037799	ADIPOR1
chr5q31	12	87	4	L vs N	0,037823	CDC23
chr17q25.1	7	69	27	G vs N	0,037854	ST6GALNAC2
chr16q23.1	29	70	4	L vs N	0,037926	NUDT7
chr6p21.1	6	85	12	G vs N	0,038002	C6orf130
chr4q12	14	87	2	L vs N	0,038084	PAICS
chr14q31.3	20	80	3	L vs N	0,038253	SPATA7
chr4p14	28	75	0	L vs N	0,038322	CENTD1
chr17q21	21	74	8	L vs N	0,038339	MAP3K14
---	17	82	4	L vs N	0,038437	---
chr12q23.2	13	85	5	L vs N	0,038524	CCDC53
chr6p21.33-p21.31	7	83	13	G vs N	0,038524	ZKSCAN4
chr14q24.3	22	80	1	L vs N	0,038524	ALDH6A1

chr19q13.42	3	85	15	G vs N	0,038815	U2AF2
chr10p15-p14	5	78	20	G vs N	0,038815	AKR1C2
chr1q12	1	53	49	G vs N	0,038815	RBM8A
chr17p13.3	28	72	3	L vs N	0,038877	PRPF8
chr11q13.2	5	81	17	G vs N	0,038918	TCIRG1
chr15q21.1	23	76	4	L vs N	0,039	KIAA0256
chr10q26.3	19	82	2	L vs N	0,039082	ADAM12
chr19p13.2	7	85	11	G vs N	0,039082	CDC37
chr11q13	1	74	28	G vs N	0,039093	CCND1
chr16q21	25	75	3	L vs N	0,039141	CETP
chr6p22.2-p21.1	6	82	15	G vs N	0,03917	HIST1H2AE
chr15q22.2	15	82	6	L vs N	0,03917	APH1B
chr14q23.1	16	82	5	L vs N	0,039221	C14orf101
chr12q24.13	12	86	5	L vs N	0,039221	RPH3A
chr12p12.1	11	84	8	L vs N	0,039242	CMAS
chr3p21.3	13	88	2	L vs N	0,039252	LARS2
chr9q31.3	13	86	4	L vs N	0,03928	KIAA0368
chr12p13.3	7	83	13	G vs N	0,039319	C12orf4
chr9q31	15	84	4	L vs N	0,039347	INVS
chr8q21.11	2	60	41	G vs N	0,039426	TMEM70
chr12q24.1	14	85	4	L vs N	0,039474	APPL2
chr17p11.2	23	76	4	L vs N	0,039582	EPPB9
chr15q26.1	14	80	9	L vs N	0,039599	ABHD2
chr10q23.3	20	82	1	L vs N	0,039664	TNKS2
chr1q21-q22	0	51	52	G vs N	0,039796	SELENBP1
chr13q14.3	42	58	3	L vs N	0,039817	PHF11
chr22q13.33	12	88	3	L vs N	0,039838	CHKB /// CPT1B
chr18q11-q12	14	84	5	L vs N	0,039838	NPC1
chr17q21	18	78	7	L vs N	0,03987	ATP6V0A1
chr15q24.3	12	83	8	L vs N	0,039934	BCL2A1
chr7q21-q31	8	83	12	G vs N	0,039934	SEMA3C
chr14q32.12-q32.13	19	78	6	L vs N	0,04004	BTBD7
chrXq23	19	82	2	L vs N	0,04004	CXorf45
chr15q22	15	83	5	L vs N	0,04004	HERC1
chr10q21	12	86	5	L vs N	0,04004	TFAM
chr10q26.3	17	83	3	L vs N	0,040062	INPP5A
chr15q25	14	81	8	L vs N	0,040062	MRPS11
chr4p16.3	18	84	1	L vs N	0,040235	ADD1
chr17p11.2	28	71	4	L vs N	0,040235	PENT
chr11p15	20	80	3	L vs N	0,040249	ARNTL
chr19q13.4	7	84	12	G vs N	0,040261	ZNF134
chr1p36.31-p36.11	16	84	3	L vs N	0,040289	ACOT7
chr1q24-q25	3	56	44	G vs N	0,040303	VAMP4
chr10q26	19	79	5	L vs N	0,040366	FGFR2
chr9q34.13	11	87	5	L vs N	0,040366	TTF1
chr14q32.13	19	79	5	L vs N	0,040366	DICER1
chr11p15.5	22	80	1	L vs N	0,040366	TRIM21
chr1p36.2-p36.12	15	87	1	L vs N	0,040473	PAX7
chr14q11.2-q21	10	82	11	G vs N	0,040534	PRMT5
chr1p22.1	12	88	3	L vs N	0,040662	RPL5
chr14q32	15	78	10	G vs N	0,040662	EML1
chr4q13	14	88	1	L vs N	0,040838	GRSF1
chr4p15.33	26	75	2	L vs N	0,040914	FBXL5
chr18q11.2 /// chr5q11.2-q13.2	13	83	7	L vs N	0,040998	DHFR /// LOC643509
chr10q23.31	22	80	1	L vs N	0,040998	MPHOSPH1
chr1p36	15	85	3	L vs N	0,040998	EPHA2
chr15q24.3	13	83	7	L vs N	0,040998	HOMER2
chr4q31.21	17	84	2	L vs N	0,040998	INPP4B
chr22q13.31	17	84	2	L vs N	0,040998	CERK
chr20q13.12	2	83	18	G vs N	0,040998	C20orf169-

						DBNDD2 /// DBNDD2
chr4q22-q25	19	83	1	L vs N	0,041009	MANBA
chr3p21.3-p14.3	14	85	4	L vs N	0,041026	TNNC1
chr19q13.1	2	86	15	G vs N	0,04108	TMEM147
chr13q21.2	39	60	4	L vs N	0,041234	DIAPH3
chr8q24.2	3	49	51	G vs N	0,041341	PSCA
chr21q11	17	76	10	L vs N	0,041374	SAMSN1
chr12q24.13	12	85	6	L vs N	0,041425	FLJ30092
chr22q12.1	15	82	6	L vs N	0,041459	PES1
chr9q22.2	14	86	3	L vs N	0,041485	SECISBP2
chr17q24	4	70	29	G vs N	0,04153	CACNG4
chr19q13.1	2	85	16	G vs N	0,041562	PAF1
chr4p16.3	18	84	1	L vs N	0,041588	NOL14
chr17q21	17	77	9	L vs N	0,041615	CNP
chr17q25.3	5	70	28	G vs N	0,041643	PGS1
chr16p11.2	2	84	17	G vs N	0,04172	BOLA2 /// BOLA2B
chr1p36.11	12	89	2	L vs N	0,04175	C1orf135
chr16q13	26	76	1	L vs N	0,04175	MT4
---	15	85	3	L vs N	0,04175	---
chr7q22.1	6	84	13	G vs N	0,041763	ZCWPW1
chr11q13.1	4	81	18	G vs N	0,041792	RPS6KB2
chr7q21.3-q22.1	8	82	13	G vs N	0,041818	NPTX2
chr15q26	12	81	10	L vs N	0,041896	ST8SIA2
chr7p14	10	80	13	G vs N	0,041925	BBS9
chr1p35-p34	11	87	5	L vs N	0,042169	EIF2C1
chr9q21	14	84	5	L vs N	0,042243	IARS
chr10q23-q24	17	83	3	L vs N	0,042252	SLC25A28
---	1	84	18	G vs N	0,042309	---
chr1pter-p22.3	12	88	3	L vs N	0,042327	SDC3
chr8p21.1	46	52	5	L vs N	0,042364	ZNF395
chr17p13.1	31	70	2	L vs N	0,042416	PLSCR3
chr10q25	19	81	3	L vs N	0,042461	SLC18A2
chr20q11.22-q12	2	84	17	G vs N	0,042461	DHX35
chr1p21.2	13	87	3	L vs N	0,042485	RTCD1
chr1p22	11	89	3	L vs N	0,042574	GNG5
chr1q25.3	1	60	42	G vs N	0,042574	ARPC5
chr12p13.31	5	86	12	G vs N	0,042574	ATN1
chr7q21-q22	5	85	13	G vs N	0,042574	GATAD1
chr1q25	1	60	42	G vs N	0,042574	DHX9
chr1p32.3	11	85	7	L vs N	0,042611	USP24
chr18p11.22-p11.21	16	80	7	L vs N	0,042619	GNAL
---	13	83	7	L vs N	0,042653	---
chr20q13	1	77	25	G vs N	0,042686	CTSZ
chr9q21	11	88	4	L vs N	0,042822	VPS13A
chr17q21	17	79	7	L vs N	0,042849	GCN5L2
chr14q32.1	20	77	6	L vs N	0,042889	TCL1A
chr22q11.2	14	82	7	L vs N	0,043013	DGCR8
chr8p21.2	51	49	3	L vs N	0,043013	PDLIM2
chr4q21	20	83	0	L vs N	0,043031	SNCA
chr1p36.31	16	85	2	L vs N	0,043064	DNAJC11
chr5q22.1-q33.3	19	81	3	L vs N	0,04322	ISOC1
chr4q13.3	13	89	1	L vs N	0,043248	PPBPL2
---	19	79	5	L vs N	0,043305	---
chr1p36.21	16	84	3	L vs N	0,04334	DDI2
chr17p11.2	28	71	4	L vs N	0,043345	COPS3
chr1p13.2	11	86	6	L vs N	0,043355	HIPK1
chr12q21 /// chr1q21.1	15	85	3	L vs N	0,043363	NUDT4 /// NUDT4P1
chr15q24.3-q25.1	14	81	8	L vs N	0,043457	TBC1D2B

chr3p21.3	14	85	4	L vs N	0,043533	RASSF1
chrXp11.4	21	78	4	L vs N	0,043619	ATP6AP2
chr17q11.2	17	79	7	L vs N	0,043733	CCL14 /// CCL15
chr13q32	27	69	7	L vs N	0,043745	GPR18
chr16p13.3 /// chr17q22 /// chr19p13.2 /// chr1p32.3 /// chr1p34.2 /// chr2p11.2 /// chr4p13 /// chr6p21.1	3	83	17	G vs N	0,043831	LOC400963 /// LOC440589 /// LOC441013 /// LOC645173 /// LOC646294 /// LOC650901 /// LOC729274 /// RPS2
chr22q13.2	16	82	5	L vs N	0,043835	CENPM
chr12q24.23	11	88	4	L vs N	0,043835	FLJ20674
chr1p36.32	16	82	5	L vs N	0,043835	LRRC47
chr5q15	27	75	1	L vs N	0,043838	CAST
chr8p21.3	52	49	2	L vs N	0,043888	CHMP7
chr18q12.1	14	82	7	L vs N	0,04392	KIAA1012
chr6p21.3	5	84	14	G vs N	0,043942	DOM3Z
chr19q13.3	19	81	3	L vs N	0,043944	RPL13A
chr10q26.13	19	81	3	L vs N	0,043944	LHPP
chr1q22	0	50	53	G vs N	0,043956	USP21
chr22q13.1- q13.2	21	79	3	L vs N	0,044007	APOBEC3B
chr15q22.2	15	83	5	L vs N	0,044007	RAB8B
chr16q22	26	75	2	L vs N	0,04402	RRAD
chr17q23.3	4	69	30	G vs N	0,044022	LYK5
chr19q13.4	6	85	12	G vs N	0,04413	ZNF132
chr17q21	19	77	7	L vs N	0,04413	CCDC56
chr19q13.1-qter	3	87	13	G vs N	0,044217	FGF21
chr18p11.32	14	83	6	L vs N	0,04436	SMCHD1
chr5q23-q31	14	85	4	L vs N	0,044369	UBE2B
chr4q12	14	87	2	L vs N	0,044376	FIP1L1
chr17p13.3	27	73	3	L vs N	0,044413	TSR1
chr4q22-q23	20	81	2	L vs N	0,044413	PDHA2
chr1q21	0	51	52	G vs N	0,044595	ARNT
chr16p11.2	2	83	18	G vs N	0,044604	LOC388237 /// LOC440350 /// LOC728734 /// LOC728741
chr1p36.32	12	84	7	L vs N	0,044774	KIAA0508
chr6q15	14	80	9	L vs N	0,044774	MDN1
chr22q12 22q12. 2	14	84	5	L vs N	0,044774	AP1B1
chr15q22.2	18	81	4	L vs N	0,04485	NARG2
chr20p13-p12	11	84	8	L vs N	0,044851	VPS16
chr12q21.2	16	84	3	L vs N	0,044901	ZDHHC17
chr18q23	19	77	7	L vs N	0,044902	CYB5A
chr16p13-p12	5	81	17	G vs N	0,044902	ZC3H7A
chr17p12-p11.2	30	71	2	L vs N	0,044939	LOC648390 /// UBB
chr4p15.1	26	76	1	L vs N	0,044941	UGDH
chr8q24.3	2	49	52	G vs N	0,044975	EPPK1
chr1q21.2	0	50	53	G vs N	0,045047	TARS2
chr21q22.3	0	86	17	G vs N	0,045124	PRMT2
chr3q27.2	2	81	20	G vs N	0,045124	VPS8
chr17q25.1	6	72	25	G vs N	0,045124	ARMC7
chr22q11.2- q13.2	14	83	6	L vs N	0,045157	PIB5PA
chr9q31.1	14	85	4	L vs N	0,045157	TXNDC4
chr12q23.1	13	85	5	L vs N	0,045181	NR1H4
chr6p21.31	5	85	13	G vs N	0,045181	MAPK13
chr5p15.2-p12	6	86	11	G vs N	0,045206	TTC33
chr16p13.3- p13.12	3	83	17	G vs N	0,045268	GFER

chr17q25	6	74	23	G vs N	0,045302	RFNG
chr12p13.3	7	83	13	G vs N	0,045369	FGF23
chr15q21.1 /// chr8q23.1	10	82	11	G vs N	0,045369	LOC650083 /// YWHAZ
chr10q26.2	19	81	3	L vs N	0,045369	DHX32
---	10	82	11	L vs N	0,045374	---
chr6q16.1	15	80	8	L vs N	0,045392	C6orf66
chr6p21.3	5	84	14	G vs N	0,045594	CREBL1 /// TNXB
chr13q12.2- q13.3	41	59	3	L vs N	0,045638	SUCLA2
chr10q24.32	15	85	3	L vs N	0,045755	C10orf76
chr4p15.2	30	73	0	L vs N	0,045759	ZCCHC4
chr19q13.11	2	88	13	G vs N	0,045796	GPATCH1
chr3p14	20	81	2	L vs N	0,045808	LRIG1
chr1p35.3	12	88	3	L vs N	0,045815	SFRS4
chr16q22	28	71	4	L vs N	0,045869	AARS
chr8p21.2	53	48	2	L vs N	0,045943	ADAM7
---	19	83	1	L vs N	0,045952	---
chr6q14.1	13	86	4	L vs N	0,045952	HMGN3
chr15q22.31	13	85	5	L vs N	0,046017	SNAPC5
chr16p11.2- p11.1	2	83	18	G vs N	0,046017	CTF1
chr17p13.1	31	70	2	L vs N	0,046017	JMJD3
chr6p21.3	5	85	13	G vs N	0,046017	VPS52
chr19q13.4	7	83	13	G vs N	0,046219	ZNF606
chr15q24	12	83	8	L vs N	0,046264	KIAA1199
chrXp11.3- p11.23	15	82	6	L vs N	0,046382	TIMP1
chr4q21	16	87	0	L vs N	0,046382	PRDM8
chr4q25-q27	17	85	1	L vs N	0,046382	ANK2
chr9q22.31	14	84	5	L vs N	0,04641	ZNF484
chr4q27	17	86	0	L vs N	0,046604	KIAA1109
chr1p36.13	16	86	1	L vs N	0,046701	PADI3
chr11q12.3 /// chr7q32.3	14	85	4	L vs N	0,046868	EEF1G /// LOC729998
chr17p11.2	33	68	2	L vs N	0,046868	MAP2K4
chr16p11.2	2	83	18	G vs N	0,046868	Orai3
chr16p13.3	3	83	17	G vs N	0,046868	PRSS22
chr3p21.3	14	85	4	L vs N	0,046868	HEMK1
chr21q22.13	4	85	14	G vs N	0,046868	MORC3
chr9q22.33	13	85	5	L vs N	0,046992	C9orf156
chr9q22	13	85	5	L vs N	0,046992	NINJ1
chr14q24	22	80	1	L vs N	0,04711	AHSA1
chr14q21.1	17	76	10	L vs N	0,047208	PNN
chr12q13	13	83	7	L vs N	0,047251	EPS8
chr14q22.3	13	83	7	L vs N	0,047251	KIAA0831
chr1p36	12	90	1	L vs N	0,047356	RUNX3
chr10q22.1	15	83	5	L vs N	0,047393	NUDT13
chr11q24-q25	36	66	1	L vs N	0,047393	NFRKB
---	34	62	7	L vs N	0,047409	---
---	13	81	9	L vs N	0,047463	---
chr3p21.1	15	85	3	L vs N	0,047463	GLT8D1
chr4q12	15	86	2	L vs N	0,047512	USP46
chr1p36	16	86	1	L vs N	0,047529	ATP13A2
chr17q21.31	20	74	9	L vs N	0,047532	RPIP8
chr1p22.1	11	88	4	L vs N	0,047561	RPL5
chr7p15	10	80	13	G vs N	0,047561	OSBPL3
chr19q13.12	2	88	13	G vs N	0,047561	ZNF345
chr3p21.1	14	85	4	L vs N	0,047791	NISCH
chr3q23	2	90	11	G vs N	0,047979	PLS1
chr1q21.1	1	52	50	G vs N	0,048002	ZNF364
chrXq22.1-q22.3	21	78	4	L vs N	0,048008	ARMCX5
chr1p36.22	16	84	3	L vs N	0,048226	NPHP4

chrXp22.13	24	77	2	L vs N	0,048266	GPR64
chr11q23.1	33	68	2	L vs N	0,048266	NNMT
chr5q31.1-q31.2	14	86	3	L vs N	0,048266	HSPA4
chr6p24.3	9	83	11	G vs N	0,048266	SSR1
chr21q11.2	17	77	9	L vs N	0,048333	NRIP1
chr7q22.1	8	82	13	G vs N	0,048387	ZNHIT1
chr5q31	12	87	4	L vs N	0,048507	HNRNPA0
chr4p13	26	77	0	L vs N	0,048656	GUF1
chr10q22.2	12	84	7	L vs N	0,048697	SEC24C
chr15q21.1	25	73	5	L vs N	0,048697	MYEF2
chr1p36.33	12	84	7	L vs N	0,048697	CDC2L1 /// CDC2L2
chr17p13	31	70	2	L vs N	0,048858	EIF4A1
chr17q22	7	72	24	G vs N	0,048945	CACNA1G
chr17q25.3	7	70	26	G vs N	0,048961	SGSH
chr3q26.32	1	82	20	G vs N	0,048961	ZNF639
chr16q22.1	16	79	8	L vs N	0,049035	VAC14
chr14q31.3	20	79	4	L vs N	0,049106	FOXN3
chr7p14.3-p14.1	10	79	14	G vs N	0,049106	SCRN1
chr7q11.23	6	84	13	G vs N	0,049132	HIP1
chr1q12-q21.2 /// chr1q21.1	1	64	38	G vs N	0,049234	LOC728980 /// LOC730476 /// NBPF10 /// NBPF11 /// NBPF14 /// NBPF15 /// NBPF16 /// NBPF20 /// NBPF8
chr16q22.1	27	74	2	L vs N	0,049234	CDH8
chr10q22.2	15	83	5	L vs N	0,049255	KIAA0974
chr6p21.3	5	84	14	G vs N	0,049312	LSM2
chr17p13	27	72	4	L vs N	0,049312	CTNS
chr16p11.2	2	83	18	G vs N	0,049338	FBRS
chr11q25	36	66	1	L vs N	0,049338	PRDM10
chr11q13.4	8	82	13	G vs N	0,04938	RNF121
chr21q11.1 21q11	17	76	10	G vs N	0,049531	STCH
chr19q13.2	2	88	13	G vs N	0,049539	PLD3
chr11q23.3	30	71	2	L vs N	0,0496	HMBS
chr15q21	21	80	2	L vs N	0,04963	MYO5A
chr19q13.43	7	84	12	G vs N	0,049722	ZNF551
chr1p36.3	16	82	5	L vs N	0,049757	WDR8
chr6p24-p23	5	82	16	G vs N	0,049757	JARID2
chr15q22.33	13	86	4	L vs N	0,049824	SMAD3
chr8p12	38	57	8	L vs N	0,049919	NRG1
chr17q25.3	6	74	23	G vs N	0,049961	C17orf62
chr6p21.3	5	85	13	G vs N	0,049961	PPP1R11
chr6p21.3	5	85	13	G vs N	0,049961	SLC39A7
chr12p12	11	82	10	G vs N	0,049964	PDE3A

Supplementary Table 5. Chromosomal regions that distinguish the 3 different NMF-based CGH clusters of breast cancers.

Regions with different DNA copy number in CGH class I as compared to other classes							
Band 1	Band 2	Probes	CGH I (n=45) Freq Gain Lost	Other (n=61) Freq Gain Lost	p val	FDR	Genes
Regions with higher DNA copy numbers in CGH class I compared to other classes							
6p23	6p22.3	34	27 4%	7 7%	2e-4	8.e-3	GMPT2 JARID2 CD83 RANBP9 SIRT5 MYLIP NOL7 CCDC90A DTNBP1 RNF182 LOC285813
6p22.3	6p22.3	35	29 4%	3 7%	2e-4	8.7e-3	E2F3 ID4 PRL SOX4 CDKAL1 MBOAT1 HDGFL1 FLJ22536 LOC729177
6p21.31	6p21.2	46	31 2%	5 7%	2e-4	8.e-3	CDKN1A MAPK14 PIM1 MAPK13 SFRS3 RNF8 STK38 KIAA0082 MTCH1 BRPF3 ETV7 PPIL1 TBC1D22B CPNE5 C6orf128 FGD2 PI16 C6orf89 KCTD20 PXT1 PNPLA1 DKFZp779B1540 FLJ43093
6p21.1	6p21.1	62	29 2%	5 7%	2e-4	8.e-3	SLC29A1 HSP90AB1 MEA1 NFKBIE PEX6 POLH PPP2R5D PTK7 SRF TBCC VEGFA POLR1C MAD2L1BP CUL7 C6orf108 SLC22A7 CAPN11 PARC KIAA0240 ZNF318 YIPF3 GNMT MRPL2 GTPBP2 MRPS18A TMEM63B XPO5 MRPL14 DLK2 TTBK1 C6orf153 ABCC10 KLC4 TJAP1 KLHDC3 PTCRA MGC45491 C6orf206 C6orf154 RPL7L1 LOC285857 SLC35B2 FLJ38717 CRIP3 LOC441150 LOC652990
9p13.2	9p13.1	35	22 7%	3 23%	1e-4	8.7e-3	PAX5 SHB GRHPR MELK ZBTB5 FRMPD1 FBXO10 EXOSC3 POLR1E WDR32 ZCCHC7 MCART1 RG9MTD3 LOC401504 C9orf105 RAB1C
9p13.1	9q13	51	18 7%	2 25%	1e-4	8.7e-3	PGM5 ZNF658 FAM75A7 CNTNAP3 ANKRD20A1 FAM27E1 LOC203274 CBWD5 LOC286272 LOC286297 FAM27E3 FOXD4L2 FOXD4L4 AQP7P1 FOXD4L3 KGFLP1 RP11-138L21.1 MGC21881 AQP7P2 FAM74A1 FAM74A4 ZNF658B FLJ20444 LOC440839 LOC440896 ANKRD20A3 LOC441426 ANKRD20A2 FLJ41455 LOC442421 CBWD3 FAM27A LOC554249 LOC572558 PGM5P2 LOC642236 FAM75A2 LOC643648 FLJ37512 CBWD6 FAM75A1 PGM5P1 FOXD4L6 FOXD4L5 KGFLP2 FAM75A3 FAM74A3 CNTNAP3B ANKRD20A4 CCDC29 LOC728877 FOXD4L2 LOC100126582
11q21	11q22.1	4	9 7%	2 38%	2e-4	8.7e-3	-
11q22.1	11q22.1	17	11 9%	2 38%	1e-4	8.7e-3	PGR TRPC6 CNTN5 TMEM133 FLJ32810
12q12	12q12	2	20 7%	2 3%	2e-4	8.7e-3	TMEM117
16q24.1	16q24.1	38	7 7%	3 41%	2e-4	8.7e-3	COX4I1 FOXF1 IRF8 USP10 KIAA0513 COX4NB KIAA0182 GINS2 DKFZp434O0320 ZDHHC7 MTHFSD CRISPLD2 LOC146513 TMEM148 LOC283904 FAM92B LOC400548 FLJ34515 C16orf74 LOC727710
Regions with lower DNA copy numbers in CGH class I compared to other classes							
1q31.3	1q32.1	171	27 0%	62 2%	1e-4	8.7e-3	ADORA1 ATP2B4 CACNA1S CHI3L1 CHIT1 CSRP1 ELF3 F13B FMOD NR5A2 GPR25 KISS1 LAD1 MYBPH MYOG PPP1R12B PKP1 PRELP PTPN7 PTPRC RABIF REN RNPEP SNRPE TNNI1 TNNT2 BTG2 PPF1A4 GPR37L1 SOX13 ZC3H11A KIF14 TIMM17A JARID1B PLEKHA6 KIF21B CAMSAP1L1 CRB1 ZNF281 PHLDA3 LMOD1 OPTC UBE2T ADIPOR1 CYB5R1 C1orf218 LAX1 ETNK2 IPO9 C1orf106 LHX9 KLHL12 LGR6 CFHR5 DDX59 C1orf217 PPP1R15B NAV1 DKFZp434B1231 TMEM183A ATP6V1G3 ARL8A SYT2 LOC127841 GOLT1A NEK7 LOC148709 PTPRV TMEM58 DENND1B TMEM9 ASPM LOC284570 C1orf157 FAM58B ZBTB41 LOC376693 C1orf53 FLJ43585 C1orf98 LOC641293 LOC641515 C1orf81 TMEM183B LOC730227
1q32.1	1q32.2	16	29 2%	61 0%	2e-4	8.7e-3	AVPR1B C4BPA C4BPB CR1 CR1L CR2 CTSE CD55 LGTN IL10 CD46 PKFQB2 PIGR DYRK3 FAIM3 MAPKAPK2 IKBKE IL24 SRGAP2 IL19 IL20 YOD1 C1orf116 FLJ13310 RASSF5 FCAMR C1orf186 C1orf147
1q32.2	1q42.1	258	27 2%	62 0%	1e-4	8.7e-3	ATF3 CAPN2 CENPF EPRS ESRRG HLX HSD11B1 IRF6 KCNH1 KCNK2 LAMB3 MARK1 NEK2 NVL PLXNA2 PPP2R5A PROX1 PTPN14 AURKAPS1 TGFB2 TLR5 TP53BP2 TRAF5 USH2A SLC30A1 DEGS1 TAF1A LPGAT1 BPNT1 DUSP10 FBXO28 RAB3GAP2 INTS7 NSL1 RPS6KC1 C1orf107 FLVCR1 CNIH4 NENF G0S2 RRP15 KCTD3 DTL MOSC2 SUSD4 GPATCH2 C1orf75 BATF3 SLC30A10 IARS2 HHAT RCOR3 SERTAD4 SMYD2 CAMK1G MOSC1 C1orf80 C1orf115 KIAA1822L VASH2 WDR26 TRAF3IP3 C1orf97 DISP1 ANGEL2 LOC91548 LOC114227 LYPLAL1 DNAH14 SPATA17 TATDN3 C1orf74 C1orf58 CNIH3 LOC149643 FAM71A C1orf65 C1orf67 SYT14 LOC284669 RD3 MIA3 FLJ43505 LOC440716 C1orf133 LOC642587 LQK1 LOC643723

15q14	15q15.3	141	44%	816%	1e-4	8.7e-3	BUB1B CAPN3 CKMT1B EPB42 GANC GCHFR PDIA3 ITPKA IVD LTK MAP1A PLCB2 RAD51 SPINT1 SRP14 THBS1 TP53BP1 TYRO3 PLA2G4B SNAP23 TGM5 HISSPPD2A LCMT2 RASGRP1 GPR176 CHP OIP5 BAHD1 MAPKBP1 RTF1 MGA VPS39 CCNDBP1 TMEM87A RPAP1 RPU5D2 TUBGCP4 EHD4 NDUFAF1 NUSAP1 SPTBN5 DLL4 INOC1 PPP1R14D CEP27 FAM82C DNAJC17 PAK6 CASC5 STARD9 VPS18 ZFP106 CHAC1 TMEM62 DISP2 LOC90408 CCDC32 C15orf23 BMF CHST14 TGM7 CATSPER2 PLA2G4E TMC05 ZSCAN29 TTBK2 CDAN1 STRC SPRED1 ADAL EXDL1 FSIP1 RHOV UBR1 PLA2G4F LRRC57 FAM98B LOC283745 PLA2G4D C15orf52 C15orf53 C15orf54 EIF2AK4 CATSPER2P1 CKMT1A LOC643338 LOC644766 FLJ38596 LOC644844 LOC644949 LOC645106 LOC649956 LOC729082
15q15.3	15q21.1	66	242%	711%	1e-4	8.7e-3	B2M GATM MFAP1 SORD SLC30A4 EIF3J SLC28A2 SERF2 HYPK PLDN DUOX2 CTDSPL2 DUOX1 SQRDL SPATA5L1 WDR76 SPG11 ELL3 C15orf48 FRMD5 SHF DUOXA1 CASC4 TRIM69 C15orf43 LOC145663 PATL2 C15orf21 DUOXA2 SERINC4 LOC645212 hCG_1789710
15q21.1	15q21.1	6	240%	711%	2e-4	8.7e-3	MYEF2 SEMA6D SLC24A5
15q21.1	15q21.2	60	240%	810%	2e-4	8.7e-3	CYP19A1 DUT FBN1 FGF7 GABPB2 GALK2 HDC SLC12A1 USP8 COPS2 KIAA0256 SLC27A2 CEP152 AP4E1 EID1 TRPM7 FLJ10038 DTWD1 ATP8B4 SPPL2A C15orf33 GLDN USP50 TNFAIP8L3 SHC4
15q21.2	15q21.3	61	233%	88%	2e-4	8.7e-3	ONECUT1 MYO5A MAPK6 RAB27A CCPG1 PIGB BCL2L10 GNB5 ARPP-19 DMXL2 SCG3 TMOD3 TMOD2 C15orf15 MYO5C KIAA1370 LEO1 FLJ27352 DYX1C1 LYSMD2 WDR72 UNC13C
15q21.3	15q22.2	91	233%	87%	1e-4	8.7e-3	ADAM10 ANXA2 AQP9 BINP2 GTF2A2 LIPC MYO1E NEDD4 RORA TCF12 ALDH1A2 CCNB2 GCNT3 C15orf31 PYGO1 FOXB1 FAM63B RNF111 ZNF280D MNS1 RFXDC2 NARG2 GRINL1A CGNL1 LDHAL6B FAM81A Gcom1 LOC145783 LOC145786 PRTG LOC283663 LOC283665 LOC283666 TEX9 HSP90AB4P
15q22.2	15q22.2	5	029%	105%	1e-4	8.7e-3	TLN2 MGC15885
15q22.2	15q22.2	9	029%	105%	1e-4	8.7e-3	TPM1 RPS27L RAB8B LACTB
15q22.2	15q22.31	11	027%	115%	1e-4	8.7e-3	CA12 USP3 APH1B LOC145842
15q22.31	15q22.31	25	227%	105%	1e-4	8.7e-3	OAZ2 PPIB SNX1 HERC1 TRIP4 KIAA0101 ZNF609 DAPK2 CSNK1G1 SNX22 FAM96A RBPMS2
17q22	17q22	26	711%	415%	2e-4	8.7e-3	TRIM37 SEPT4 RAD51C SUPT4H1 MTMR4 PPM1E RNF43 TEX14 HSF5 C17orf47 hCG_1642624
17q22	17q23.3	122	911%	443%	1e-4	8.7e-3	CA4 CLTC CYB561 ACE MAP3K3 RPS6KB1 TBX2 PPM1D TBX4 MRC2 MED13 WDR68 APPBP2 TLK2 DDX42 TANC2 LOC51136 TUBD1 CCDC44 PTRH2 BCAS3 C17orf71 PRR11 CCDC47 INTS2 HEATR6 DHX40 LIMD2 KCNH6 TMEM49 BRIP1 USP32 LYK5 C17orf64 EFCAB3 MARCH10 GDDP1 METTL2A NACA2 FAM33A YPEL2 FLJ27502 C17orf82 TBC1D3P2 LOC645638 LOC645688 hCG_2001000
Regions with different DNA copy number in CGH class II as compared to other classes							
Band1	Band 2	Probes	CGH II (n=31) Freq Gain Lost	Other (n=75) Freq Gain Lost	P val	FDR	Genes
Regions with higher DNA copies in CGH class II compared to other classes							
17p13.2	17p13.2	2	2619%	127%	1e-4	9.5e-3	USP6
17p11.2	17p11.2	2	2313%	116%	1e-4	9.5e-3	-
17q11.2	17q11.2	32	396%	1217%	1e-4	9.5e-3	ALDOC RPL23A SDF2 SUPT6H TNFAIP1 VTN FOXN1 SLC13A2 UNC119 KIAA0100 SPAG5 SARM1 POLDIP2 TMEM97 C17orf63 RAB34 IFT20 PIGS SLC46A1 TLCD1 FLJ25006 C17orf32 PROCA1 NEK8 SEBOX hCG_16001
17q12	17q21.1	32	5213%	1213%	1e-4	9.5e-3	CSF3 ERBB2 GRB7 NEUROD2 PNMT PSMD3 THRA TCAP MED24 STARD3 IKZF3 GSDML PPP1R1B C17orf37 PERLD1 ORMDL3 ZBP2 GSDM1
17q21.1	17q21.2	12	4516%	913%	1e-4	9.5e-3	CDC6 NR1D1 CASC3 RAPGEFL1 WIPF2 MSL-1
17q21.32	17q21.32	4	4213%	1211%	1e-4	9.5e-3	ABI3 FLJ40194 PHOSPHO1
17q21.32	17q21.33	9	4810%	139%	1e-4	9.5e-3	NGFR PHB ZNF652
17q21.33	17q21.33	60	456%	139%	1e-4	9.5e-3	CHAD COL1A1 DLX3 DLX4 ITGA3 NME1 NME2 PDK2 SGCA ABCC3 CACNA1G TOB1 SLC35B1 MYST2 UTP18 MRPL27 CROP MBTD1 C17orf73 EPN3 RSAD1 LRRC59 XYLT2 SPATA20 ACSF2 FAM117A MYCBPAP PPP1R9B ANKRD40 WFIKN2 EME1 TMEM92 SAMD14 LOC253962 TAC4 LOC284080 HILS1 LOC400604 FLJ42842 NME1-NME2 FLJ45513
17q22	17q22	7	4210%	118%	1e-4	9.5e-3	HLF STXBP4
17q22	17q22	44	45	9	1e-4	9.5e-3	TRIM25 COIL AKAP1 DGKE NOG MMD TMEM100 PCTP SCPEP1 FLJ11710 MSI2 ANKFN1 C17orf67 RNF126P1

			6%	9%			
17q22	17q22	7	52 6%	11 9%	1e-4	9.5e-3	LPO MPO EPX BZRAP1 MKS1
17q22	17q22	10	55 3%	9 9%	1e-4	9.5e-3	SEPT4 MTMR4 RNF43 HSF5 C17orf47
17q22	17q24.2	262	68 6%	17 8%	1e-4	9.5e-3	(n=103) APOH CD79B CLTC CYB561 ACE DDX5 BPTF GH1 GH2 ICAM2 KPNA2 MAP3K3 TRIM37 PECAM1 PRKAR1A PRKCA RAD51C RPS6KB1 SMARCD2 TBX2 AXIN2 PPM1D MRC2 HELZ APPBP2 GNA13 TLK2 POLG2 DDX42 PPM1E PITPNC1 BCAS3 WIP1 TEX14 INTS2 HEATR6 SMURF2 DHX40 BRIP1 LYK5
20q13.32	20q13.33	70	52 0%	19 3%	1e-4	9.5e-3	ATP5E CDH4 CTSZ EDN3 GNAS PPP1R3D PSMA7 TAF4 STX16 SYCP2 SS18L1 GTPBP5 SLMO2 TH1L CDH26 C20orf177 MGC4294 NPEPL1 TUBB1 PHACTR3 C20orf174 LOC149773 NESPAS LSM14B APCDD1L C20orf197 LOC284757
20q13.33	20q13.33	63	55 0%	20 3%	1e-4	9.5e-3	CHRNA4 COL9A3 EEF1A2 KCNQ2 LAMA5 NTSR1 PTK6 RPS21 SRMS TPD52L2 TNFRSF6B OSBPL2 ARFRP1 TCFL5 ADRM1 OGFR DIDO1 PRPF6 GMEB2 SLC04A1 STMN3 RTEL1 YTHDF1 LIME1 UCKL1 C20orf11 C20orf20 ARFGAP1 SLC2A4RG ZNF512B COL20A1 C20orf59 C20orf51 C20orf195 C20orf149 BIRC7 DNAJC5 CABLES2 ZGPAT PRIC285 BHLHB4 NKAIN4 C20orf166 GATA5 ZBTB46 SAMD10 C20orf135 C20orf181 C20orf151 RP11-93B14.6 C20orf200 HAR1A HAR1B UCKL1OS
20q13.33	20q13.33	9	55 0%	17 1%	1e-4	9.5e3	NPBWR2 MYT1 OPR1L RGS19 LOC198437
Regions with lower DNA copies in CGH class II compared to other classes							
1q21.1	1q21.1	10	19 3%	60 0%	1e-4	9.5e-3	PDZK1 ITGA10 PEX11B RBM8A PIAS3 POLR3C CD160 ZNF364 GNRHR2 LIX1L ANKRD35 NUDT17 FAM108A3 GPR89A XXyac-YX155B6.1
8q24.3	8q24.3	18	26 10%	60 0%	1e-4	9.5e-3	CYC1 GRINA HSF1 PLEC1 DGAT1 GPAA1 BOP1 FBXL6 OPLAH CPSF1 C8orf30A EXOSC4 GPR172A SHARPIN SCRT1 MAF1 PARP10 ADCK5 KIAA1875 C8ORFK29 SPATC1 C8orf66 SCXB KIAA1833
Regions with different DNA copy number in CGH class III compared to other classes							
Band 1	Band 2	Probes	CGH III (n=30) Freq Gain Lost	Other (n=76) Freq Gain Lost	p val	FDR	Genes
Regions with higher DNA copies in CGH class III as compared to other classes							
1q22	1q23.1	30	77 0%	38 4%	1e-4	2.6e-3	CD5L CRABP2 ETV3 HDGF INSR NTRK1 PRCC SH2D2A ARHGEF11 NES C1orf66 GPATCH4 HAPLN2 BCAN FCRL2 MRPL24 ISG20L2 FCRL5 FCRL4 FCRL1 FCRL3 IQGAP3 APOA1BP C1orf92 TTC24 PEAR1 FLJ16478
1q24.1	1q31.2	433	80 0%	34 5%	1e-4	2.6e-3	(n=161) ABL2 FASLG SERPINC1 ATP1B1 CACNA1E CD247 DHX9 F5 FMO1 FMO3 FMO4 GLUL LAMC1 LAMC2 MYOC NCF2 PIGC PLA2G4A PRRX1 POU2F1 PTGS2 RGS1 RGS2 RGS13 RGS16 RNASEL RNF2 SELE SELL SELP SOAT1 TNR TPR TNFSF4 BLZF1 CREG1 TNFSF18 ANGPTL1 XPR1 CEP350 RABGAP1L PRG4 GPA33 RGL1 BAT2D1 CACYBP IER5 RALGPS2 TNN RFWD2 RGS18 RGLS2 RGS8 LHX4 RCSD1 FAM129A FAM5C RGLS1
1q31.2	1q31.3	53	77 0%	22 0%	1e-4	2.6e-3	CFH KCNT2
1q31.3	1q44	840	93 0%	37 3%	1e-4	2.6e-3	(n=378) ACTA1 PARP1 ADSS AGT ARF1 ATF3 CAPN2 CD34 CENPF CHI3L1 CHIT1 CR1 CSRP1 CTSE CD55 ELF3 ELK4 EPHX1 ESRRG FH FMOD NR5A2 GNG4 HNRNPU HSD11B1 IL10 ITPKB KCNH1 KISS1 LAMB3 LGALS8 CD46 MDM4 MTR MYOG PPP1R12B NEK2 NID1 NVL PCTK3 PIGR PIK3C2B PKP1 PPP2R5A PROX1 PSEN2 PTPN7 PTPN14 PTPRC RAB4A RABIF RBBP5 REN RGS7 RYR2 CNTN2 TGFBI2 LEFTY2 TLR5 TP53BP2 TRAF5 TSNAX WNT9A BTG2 DYRK3 CDC42BPA PPFIA4 RAB7L1 EXO1 FAIM3 MAPKAPK2 IKBKE TOMM20 KIF14 AKT3 TIMM17A LRRN2 LEFTY1 CAPN9 JARID1B SDCCAG8 IL24 PLEKHA6 SRGAP2 RIPK5 RPS6KC1 DISC1 FLVCR1 G0S2 IL20 ADIPOR1 KCTD3 ARID4B EGLN1 HHAT ENAH NUP133 RCOR3 SMYD2 CABCI CAMK1G SIPA1L2 RHOU SMYD3 JMJID4 NUAKE2 RASSF5 MIXL1 C1orf124 OBSCN PPP1R15B SLC45A3 WNT3A LEMD1 NEK7 ASPM LIN9 MIA3
Regions with lower DNA copies in CGH class III compared to other classes							
11q22.1	11q22.3	73	0 50%	8 17%	4e-4	9.2e-3	BIRC2 BIRC3 MMP1 MMP3 MMP7 MMP8 MMP10 MMP12 MMP13 PGR TRPC6 MMP20 YAP1 CNTN5 KIAA1377 MMP27 DYNC2H1 PDGFD TMEM133 DCUN1D5 C11orf70 TMEM123 FLJ32810 ANGPTL5
16q12.2	16q12.2	22	3 57%	1 14%	1e-4	2.6e-3	MMP2 IRX5 FTO IRX6 IRX3 hCG_1815491
16q12.2	16q13	76	3 57%	3 14%	1e-4	2.6e-3	AMFR BBS2 CES1 CETP GNAO1 MT1A MT1B MT1E MT1F MT1G MT1H MT1JP MT1M MT1L MT1X MT2A MT3 POLR2C CCL17 CCL22 CX3CL1 SLC6A2 SLC12A3 GPR56 NUP93 HERPUD1 NUDT21 ARL2BP DKFZP434H168 PLLP CES4 AYTL1 OGFOD1 DOK4 COQ9 CIAPIN1 NIP30 NLRC5 CAPNS2 MT4 RSPRY1 CCDC102A CPNE2 GPR114 CES7 LOC283856 MT1DP MT1IP
16q13	16q13	18	3 57%	4 13%	2e-4	5e-3	CNGB1 KIFC3 MMP15 KATNB1 ZNF319 C16orf57 CCDC135 GPR97 TEPP LOC388282
16q21	16q21	8	3 57%	1 18%	3e-4	7.3e-3	-
16q21	16q21	14	3 57%	1 18%	3e-4	7.3e-3	CDH8

16q21	16q21	8	3 57%	1 18%	4e-4	9.2e-3	-
16q21	16q22. 1	39	3 57%	3 18%	1e-4	2.6e-3	CDH5 CDH11 DYNC1LI2 TK2 APPBP1 CMTM1 CMTM3 CMTM4 CMTM2 BEAN CCDC79 LOC283867 FLJ27243
16q22 .1	16q22. 1	27	3 57%	3 14%	1e-4	2.6e-3	CBFB CDH16 E2F4 HSF4 RRAD CES2 NOL3 CES3 FAM96B FBXL8 PDP2 C16orf70 MGC4655 FLJ37464 EXOC3L LOC653319
16q22 .1	16q22. 1	116	7 57%	5 16%	1e-4	2.6e-3	AGRP CDH1 CDH3 CTRL NQO1 HAS3 HSD11B2 LCAT NFATC3 PSKH1 PSMB10 SLC9A5 SLC12A4 SNTB2 TERF2 SLC7A6 ATP6V0D1 NUTF2 CTCF NFAT5 WWP2 EDC4 LYPLA3 PLEKHG4 LRRC29 VPS4A NOB1 HSPC171 FHOD1 ZDHHC1 PARD6A NIP7 TPPP3 PRMT7 DUS2L CTF8 LRRC36 SMPD3 DDX28 TSNAXIP1 THAP11 RANBP10 PDF DPEP2 DPEP3 ACD FAM65A TMCO7 RBM35B FLJ12331 CENPT CYB5B GFOD2 C16orf48 SLC7A6OS COG8 CIRH1A NRN1L ZFP90 RLTPR KCTD19 TMED6 LOC388284
16q22 .1	16q22. 1	19	7 57%	4 14%	2e-4	5e-3	ST3GAL2 DDX19B SF3B3 COG4 DDX19A C16orf77 FUK
16q22 .3	16q23. 1	61	7 57%	4 17%	2e-4	5e-3	ZFXH3 DHODH GLG1 HP HPR PSMD7 DHX38 KIAA0174 TXNL4B RFWD3 FA2H WDR59 PMFBP1 ZNRF1 LOC146346 LDHD MLKL LOC283902 LOC283922 PKD1L3 LOC348174 C16orf47 LOC440348 LOC440386 LOC497190
16q23 .1	16q23. 1	9	7 57%	3 16%	4e-4	9.2e-3	MON1B ADAMTS18
16q23 .3	16q24. 1	58	3 53%	5 17%	3e-4	7.3e-3	COX4I1 FOXF1 IRF8 TAF1C USP10 KIAA0513 ATP2C2 COX4NB KIAA0182 COTL1 GINS2 DKFZp434O0320 ZDHHC7 KIAA1609 WFDC1 MTHFSD C16orf44 HSDL1 CRISPLD2 KCNG4 LRRC50 LOC146513 ADAD2 TMEM148 LOC283904 FAM92B LOC400548 FLJ34515 C16orf74 LOC654780 LOC727710 LOC729887
16q24 .1	16q24. 2	30	3 53%	5 17%	3e-4	7.3e3	FOXL1 FOXC2 SLC7A5 ZCCHC14 KLHDC4 JPH3 FBXO31 MAP1LC3B FLJ30679 FLJ46320

Supplementary Table 6 Genes differentially expressed among the three CGH-molecular classes.

	Parametric p-value	t- value	Geom mean of intensities in class 1	Geom mean of intensities in class 2	Geom mean of intensities in class 3	Probe set	Gene symbol
1	< 1e-07	21.022	158.6536345	295.665311	175.5536183	202631_s_at	APPBP2
2	< 1e-07	19.721	87.7948486	192.323083	94.949187	204171_at	LOC729334 /// LOC731896 /// RPS6KB1
3	2e-07	18.048	1730.5422442	3660.3382929	2015.9640832	200614_at	CLTC
4	3e-07	17.444	626.8060323	1297.5407055	750.3538541	220990_s_at	MIRN21 /// TMEM49
5	4e-07	17.081	183.2024562	367.9673229	233.048322	218277_s_at	DHX40
6	6e-07	16.694	860.0178252	289.5897979	414.3522805	200824_at	GSTP1
7	7e-07	16.447	352.4362257	567.7551712	402.9421997	201986_at	MED13
8	7e-07	16.436	350.8230705	581.393903	373.4737064	201483_s_at	SUPT4H1
9	8e-07	16.187	73.8897683	87.3419528	110.3166644	219687_at	HHAT
10	1.4e-06	15.485	746.8231864	2153.9312416	2069.3151139	218211_s_at	MLPH
11	2.3e-06	14.853	122.9018798	84.7005865	407.1942537	218002_s_at	CXCL14
12	2.3e-06	14.843	321.6522404	327.1573615	473.9242745	218361_at	GOLPH3L
13	2.6e-06	14.704	367.0392066	661.7134438	449.51502	218167_at	AMZ2
14	2.6e-06	14.665	97.5790628	237.7720226	276.5618474	209459_s_at	ABAT
15	3.2e-06	14.402	67.7212798	103.7719393	154.362194	217894_at	KCTD3
16	3.7e-06	14.216	257.1583587	494.1734509	540.0347249	218313_s_at	GALNT7
17	4.5e-06	13.98	428.6787577	1267.563398	574.837475	216836_s_at	ERBB2
18	5.2e-06	13.804	51.3136576	52.3232787	79.0590381	211330_s_at	HFE
19	5.4e-06	13.752	600.5587431	452.9241127	322.293291	201195_s_at	SLC7A5
20	5.4e-06	13.733	436.9447136	735.4816618	436.6258883	221970_s_at	NOL11
21	6.5e-06	13.507	311.2833182	577.0584182	346.2411298	207186_s_at	BPTF
22	6.7e-06	13.465	597.217793	3426.3584262	2245.7935637	209173_at	AGR2
23	7.4e-06	13.336	322.1206365	530.4340413	353.0146808	213009_s_at	TRIM37
24	7.5e-06	13.318	155.7890155	107.069972	109.4165097	202147_s_at	IFRD1
25	8.1e-06	13.233	57.7010261	39.5781103	81.4991096	218983_at	C1RL
26	8.1e-06	13.23	264.4175196	516.9711924	625.0170973	208711_s_at	CCND1
27	8.4e-06	13.181	579.5753027	1380.7706716	894.5172094	201349_at	SLC9A3R1
28	8.6e-06	13.153	212.5466901	423.1084347	488.5740637	208712_at	CCND1
29	8.9e-06	13.113	171.1030382	303.9247435	183.5912842	202353_s_at	PSMD12
30	9e-06	13.101	29.5520404	39.4631668	88.8513849	206091_at	MATN3
31	1.03e-05	12.926	87.2388849	196.331315	138.103543	207038_at	SLC16A6
32	1.06e-05	12.888	198.6845956	444.7170532	375.9108063	203988_s_at	FUT8

33	1.06e-05	12.887	235.5224572	291.9354681	386.0477867	203513_at	SPG11
34	1.09e-05	12.852	250.0694663	341.8722348	349.127962	202172_at	VEZF1
35	1.17e-05	12.762	327.9021926	1007.0945006	1030.7092481	212956_at	TBC1D9
36	1.28e-05	12.653	254.8013436	434.2586715	314.2463034	212510_at	GPD1L
37	1.38e-05	12.558	944.7418098	1726.1791315	1048.6496796	209503_s_at	PSMC5
38	1.55e-05	12.407	419.6539682	601.1890646	454.5917814	201788_at	DDX42
39	1.57e-05	12.399	585.4262202	414.2048976	372.3680506	201970_s_at	NASP
40	1.58e-05	12.389	191.4555591	125.2191764	125.4226159	211126_s_at	CSRP2
41	1.59e-05	12.383	141.5059586	346.9407626	276.6907671	221024_s_at	SLC2A10
42	1.72e-05	12.284	628.9829086	1047.8865375	845.2045307	221732_at	CANT1
43	1.97e-05	12.113	356.7050453	544.4681949	502.2780277	202171_at	VEZF1
44	1.99e-05	12.099	75.1548491	176.2107095	197.1591539	209460_at	ABAT
45	2.02e-05	12.078	516.8580334	682.230944	669.548413	222125_s_at	PH-4
46	2.07e-05	12.051	1151.2490328	3132.0022828	3215.8817882	209604_s_at	GATA3
47	2.18e-05	11.986	243.2468866	461.3034161	658.1414241	203453_at	SCNN1A
48	2.19e-05	11.98	291.1126264	385.4543483	478.3208759	219241_x_at	SSH3
49	2.21e-05	11.971	149.4201678	470.0555592	458.6465711	204667_at	FOXA1
50	2.21e-05	11.969	373.3390885	589.0807345	355.2216782	202352_s_at	PSMD12
51	2.28e-05	11.93	1036.1652722	1724.1857351	1932.0649156	208783_s_at	CD46
52	2.3e-05	11.92	1030.69669	2759.4717204	2894.7757354	202088_at	SLC39A6
53	2.32e-05	11.907	124.2515808	218.8558644	150.283255	213510_x_at	LOC220594
54	2.48e-05	11.825	451.2427752	543.5620818	664.212668	202187_s_at	PPP2R5A
55	2.58e-05	11.777	137.5282691	270.7190951	397.2453273	201860_s_at	PLAT
56	3.05e-05	11.57	527.9084061	266.5174419	295.554131	209644_x_at	CDKN2A
57	3.22e-05	11.502	561.4164119	1163.4628212	703.389332	209163_at	CYB561
58	3.26e-05	11.489	322.823735	1063.0384478	1391.5026344	214164_x_at	CA12
59	3.3e-05	11.473	18.7528774	21.6503657	47.7920136	205234_at	SLC16A4
60	3.5e-05	11.4	409.3481271	766.2844138	460.3888329	209164_s_at	CYB561
61	3.62e-05	11.358	79.4652734	137.007145	84.1451456	210930_s_at	ERBB2
62	4.04e-05	11.225	322.0663116	1022.1097055	1350.2873407	215867_x_at	CA12
63	4.05e-05	11.221	145.8931222	370.2570741	371.3150052	218976_at	DNAJC12
64	4.13e-05	11.198	194.3224745	142.8650871	132.6233998	202613_at	CTPS
65	4.37e-05	11.129	286.9816946	451.9847593	311.1392747	214268_s_at	MTMR4
66	4.59e-05	11.069	238.267477	412.353978	352.873379	204485_s_at	TOM1L1
67	4.67e-05	11.047	259.845709	276.0026928	408.8103256	212907_at	SLC30A1
68	4.7e-05	11.04	1544.1185117	3970.5571484	2861.1810377	201596_x_at	KRT18
69	4.72e-05	11.035	508.2454194	700.6274396	718.3005368	207549_x_at	CD46
70	4.97e-05	10.971	363.1535888	1852.366529	1109.7811518	204623_at	TFF3
71	4.98e-05	10.969	1309.0948204	1754.882674	2165.8153584	211986_at	AHNAK
72	5.03e-05	10.957	234.5322503	304.7908025	315.4043734	204332_s_at	AGA
73	5.15e-05	10.927	102.506008	172.3726979	127.1429242	217000_at	KRT18P50
74	5.24e-05	10.906	204.0261956	328.0437823	351.5960987	211712_s_at	ANXA9
75	5.31e-05	10.89	188.4208015	237.7077856	279.2448608	211373_s_at	PSEN2
76	5.63e-05	10.819	337.447305	219.202135	254.6421052	213260_at	FOXC1
77	5.64e-05	10.817	330.3293183	382.6952629	460.3012148	218394_at	ROGDI
78	5.78e-05	10.786	170.3179541	272.4837999	336.9941512	201826_s_at	SCCPDH
79	5.87e-05	10.768	59.7230648	71.5619233	86.7201777	219750_at	TMEM144

80	6.23e-05	10.696	245.9016285	489.5471981	551.2823467	209603_at	GATA3
81	6.43e-05	10.657	299.5513163	147.3387477	147.6032169	207030_s_at	CSRP2
82	6.71e-05	10.605	352.6828427	898.7335598	823.6680787	211657_at	CEACAM6
83	6.74e-05	10.6	198.6308842	643.9224068	601.4124437	203757_s_at	CEACAM6
84	6.74e-05	10.599	215.7755424	166.6114077	283.9479078	217788_s_at	GALNT2
85	6.82e-05	10.585	116.9958246	63.9009952	80.5747646	209318_x_at	PLAGL1
86	7.14e-05	10.529	187.5329485	266.8868518	278.3838177	218931_at	RAB17
87	7.29e-05	10.504	287.7011235	207.3642824	179.8234792	203625_x_at	SKP2
88	7.45e-05	10.478	303.4705316	282.7135153	219.9675942	215722_s_at	SNRPA1
89	7.6e-05	10.455	109.3606754	164.0818428	182.6714423	210085_s_at	ANXA9
90	7.63e-05	10.45	458.949949	808.9816825	452.7300565	201388_at	PSMD3
91	7.67e-05	10.443	272.4668527	366.1665349	381.8406118	212319_at	SGSM2
92	8.11e-05	10.376	102.1275897	81.4328153	74.3635936	218663_at	NCAPG
93	8.2e-05	10.363	425.3720853	598.7326178	602.4459532	202636_at	RNF103
94	8.89e-05	10.265	54.389528	98.9880718	87.3850211	219570_at	C20orf23
95	8.95e-05	10.256	195.0016578	177.9474441	261.3884941	204735_at	PDE4A
96	9.17e-05	10.227	1880.8910959	3961.1628124	4335.8485652	200670_at	XBP1
97	9.78e-05	10.149	278.0669908	619.9243923	785.3519215	203963_at	CA12
98	0.000101	10.111	364.4510293	359.4278752	520.2720073	212408_at	TOR1AIP1
99	0.0001032	10.085	270.7550151	494.348254	400.0595908	46323_at	CANT1
100	0.0001037	10.08	187.9475051	143.9452596	131.7924126	218757_s_at	UPF3B
101	0.0001076	10.035	393.9495634	276.9754088	206.3979823	202870_s_at	CDC20
102	0.0001089	10.02	924.517525	1589.7588044	1257.9651381	200618_at	LASP1
103	0.0001098	10.01	150.8401072	32.1359091	80.3473308	202035_s_at	SFRP1
104	0.0001099	10.01	1006.0613842	1641.4386987	1457.8717395	200603_at	PRKAR1A
105	0.0001111	9.996	127.5106151	105.006988	91.1825544	209642_at	BUB1
106	0.0001119	9.987	193.0428713	262.4394278	314.3339139	219919_s_at	SSH3
107	0.0001125	9.981	188.7947973	294.6564033	253.5897394	205376_at	INPP4B
108	0.000115	9.955	149.1722198	213.9210407	162.2326851	204554_at	PPP1R3D
109	0.0001179	9.925	547.5615677	1172.5824122	771.1031605	202704_at	TOB1
110	0.0001201	9.903	78.1659399	329.7750053	91.0134753	214079_at	DHRS2
111	0.0001203	9.9	113.3434496	85.7920915	56.0876561	204162_at	NDC80
112	0.000122	9.884	236.0887426	676.5111684	723.3961557	209602_s_at	GATA3
113	0.000125	9.855	1411.2789763	2967.1647556	2467.2741313	217979_at	TSPAN13
114	0.000125	9.855	361.1287556	605.3623177	424.3020114	209049_s_at	ZMYND8
115	0.0001268	9.838	201.6094885	143.8672457	136.9607793	221203_s_at	YEATS2
116	0.0001275	9.831	173.374375	71.5525567	134.3012927	202133_at	WWTR1
117	0.0001296	9.812	82.8148043	52.1861085	60.3007135	206953_s_at	LPHN2
118	0.0001307	9.801	1005.502865	590.6662458	628.446871	200934_at	DEK
119	0.000132	9.79	511.6502998	406.3636646	377.1583389	201555_at	MCM3
120	0.0001339	9.772	199.9638686	87.5926389	142.1298757	205350_at	CRABP1
121	0.0001352	9.761	273.2816896	92.1939121	206.0636133	204304_s_at	PROM1
122	0.0001354	9.759	3319.7042595	4504.0680052	4623.5686605	210183_x_at	
123	0.0001355	9.758	204.6384697	280.3200307	341.9559641	218930_s_at	TMEM106B
124	0.0001356	9.757	191.5356044	197.5611579	262.4250932	214919_s_at	EIF4EBP3 /// MASK-BP3
125	0.0001382	9.735	277.5221933	172.579951	201.4073216	203574_at	NFIL3

126	0.0001415	9.706	224.0581637	280.1352469	345.3902193	201941_at	CPD
127	0.0001415	9.706	140.7187997	209.5757038	181.660258	204378_at	BCAS1
128	0.0001424	9.698	542.4528613	703.1477173	853.1527814	218966_at	MYO5C
129	0.0001439	9.686	318.1256822	494.3299381	518.4948823	201825_s_at	SCCPDH
130	0.0001444	9.682	377.2988823	1077.8418683	1055.5382499	202089_s_at	SLC39A6
131	0.0001459	9.67	1070.0825627	2256.9269348	1933.1875054	213627_at	MAGED2
132	0.000149	9.644	63.0059324	71.8942861	114.7949241	205776_at	FMO5
133	0.0001508	9.63	361.0161112	199.3445197	417.5963122	202936_s_at	SOX9
134	0.0001513	9.626	185.6978083	519.8194416	613.7512233	214440_at	NAT1
135	0.0001588	9.568	3143.4174858	2286.1095911	2028.3398442	208628_s_at	YBX1
136	0.0001629	9.538	889.7867491	1322.3853853	1553.7187651	200810_s_at	CIRBP
137	0.0001644	9.527	126.4358528	233.5761792	230.470504	209681_at	SLC19A2
138	0.0001701	9.486	271.1318306	397.4011835	390.5164636	209130_at	SNAP23
139	0.0001706	9.483	617.7783699	1053.1047632	976.050155	203773_x_at	BLVRA
140	0.0001751	9.452	465.3114977	866.6148953	889.5232922	212099_at	RHOB
141	0.0001762	9.445	473.9952573	667.4859813	429.1944079	201818_at	AYTL2
142	0.0001764	9.443	235.1125667	333.2476374	230.6081248	209222_s_at	OSBPL2
143	0.0001765	9.443	554.4929194	858.6359838	722.065865	212400_at	FAM102A
144	0.0001784	9.43	330.4174357	592.80851	399.8943978	55616_at	PERLD1
145	0.0001796	9.422	360.6978423	473.107578	504.6270369	211574_s_at	CD46
146	0.0001804	9.417	301.0237718	501.9153258	385.7922102	218145_at	TRIB3
147	0.0001841	9.392	87.918401	62.9070466	66.6441838	210005_at	GART
148	0.0001848	9.388	335.9820103	451.3849764	572.455052	202263_at	CYB5R1
149	0.0001934	9.334	259.4741567	102.704546	172.642872	202036_s_at	SFRP1
150	0.0001978	9.307	347.323792	767.8115877	645.3408084	203108_at	GPRC5A
151	0.0001988	9.301	399.4405175	597.2968472	690.2255042	201125_s_at	ITGB5
152	0.0002014	9.286	34.366466	80.8916768	51.5030241	214858_at	
153	0.0002014	9.286	127.7021431	184.1316229	179.8143774	213626_at	CBR4
154	0.0002055	9.262	645.9972712	1073.7822191	1004.6975787	211729_x_at	BLVRA
155	0.0002079	9.248	131.9084086	86.1885586	91.181815	218868_at	ACTR3B
156	0.0002116	9.227	639.4318641	1033.3286252	808.6203603	214112_s_at	CXorf40A /// CXorf40B
157	0.0002118	9.226	341.764726	516.8242436	533.5797838	219127_at	ATAD4
158	0.0002167	9.199	134.898496	510.4868102	227.0755741	204540_at	EEF1A2
159	0.0002173	9.196	212.6527374	489.7518748	204.2715036	206463_s_at	DHRS2
160	0.0002204	9.179	3323.0722973	4474.0595274	4637.3791619	217756_x_at	SERF2
161	0.0002263	9.147	14.9872842	12.1385791	10.9834391	215532_x_at	ZNF492
162	0.000229	9.133	315.7611069	169.8217831	201.3002741	203126_at	IMPA2
163	0.0002347	9.104	585.6141155	335.1602895	398.2306548	201397_at	PHGDH
164	0.0002383	9.086	131.8563449	151.0405438	200.1306061	220926_s_at	EDEM3
165	0.000239	9.082	766.1643735	1451.1253249	1691.9272422	201952_at	ALCAM
166	0.0002396	9.08	514.6226147	703.1170872	1453.8259752	214428_x_at	C4A /// C4B
167	0.0002437	9.059	218.7000588	123.5415919	227.8494118	201445_at	CNN3
168	0.0002495	9.032	349.2474991	545.2530834	502.3608093	204542_at	ST6GALNAC2
169	0.0002591	8.987	1944.2780704	1353.6756133	1224.46654	208627_s_at	YBX1
170	0.0002592	8.987	39.8821089	55.5725127	48.2976981	221195_at	LOC51136
171	0.0002595	8.985	146.7706311	103.0808659	179.4552687	205542_at	STEAP1

172	0.0002602	8.982	237.8331046	136.743028	164.4921863	212771_at	C10orf38
173	0.0002615	8.976	369.6784583	484.5473549	471.9527006	221934_s_at	DALRD3
174	0.0002641	8.965	119.9677745	74.3852931	71.726053	209204_at	LMO4
175	0.0002643	8.964	562.0533268	752.6231272	1461.2056341	208451_s_at	C4A /// C4B
176	0.0002663	8.955	558.4133024	765.6419658	859.6227499	202180_s_at	MVP
177	0.0002705	8.936	201.1974825	186.545273	142.0033756	203418_at	CCNA2
178	0.0002734	8.924	328.7238982	134.0190055	226.0443541	202037_s_at	SFRP1
179	0.0002739	8.922	164.5933854	262.3960522	254.2021133	205597_at	SLC44A4
180	0.0002753	8.915	260.964257	404.036358	275.3995109	203739_at	ZNF217
181	0.0002754	8.915	217.653936	176.046025	157.4350162	219275_at	PDCD5
182	0.0002788	8.9	1610.9307521	1021.8187999	1109.8895604	200632_s_at	NDRG1
183	0.0002806	8.893	1088.6779061	1719.2437329	2016.0905439	208788_at	ELOVL5
184	0.0002869	8.867	132.7587003	83.96098	102.9263592	203637_s_at	MID1
185	0.000287	8.867	128.8581724	78.320184	91.2118808	222162_s_at	ADAMTS1
186	0.0002874	8.865	173.5891078	321.751324	401.9497838	204508_s_at	CA12
187	0.0002887	8.859	204.5047018	156.8172451	164.7469037	213170_at	GPX7
188	0.000299	8.818	352.2283981	557.5269877	576.3267783	211698_at	EID1
189	0.0003006	8.812	467.6121011	666.3604275	623.8082426	219053_s_at	VPS37C
190	0.0003016	8.808	399.4834781	626.1734021	467.345316	212961_x_at	CXorf40B
191	0.0003018	8.807	320.1825113	338.8799348	580.6560703	201185_at	HTRA1
192	0.0003151	8.756	169.7546009	104.9284564	200.3202609	212327_at	LIMCH1
193	0.0003195	8.74	220.7699633	242.47516	317.2448331	218721_s_at	C1orf27
194	0.0003248	8.721	425.0998592	219.5903993	254.5163834	212236_x_at	KRT17
195	0.0003277	8.71	151.2778645	123.4961589	89.2289742	204962_s_at	CENPA
196	0.0003278	8.71	637.6640761	1240.1950532	1005.6810135	208682_s_at	MAGED2
197	0.000331	8.699	378.53017	262.4627939	293.1084645	216397_s_at	BOP1 /// LOC727967
198	0.0003383	8.673	353.6856257	357.5543451	466.1789873	214801_at	
199	0.0003389	8.671	481.4652017	1189.6376884	1042.3649369	205081_at	CRIP1
200	0.0003493	8.635	167.7991666	124.2457006	129.7738651	205526_s_at	KATNA1
201	0.0003494	8.635	269.4903187	183.7712472	193.7166668	219806_s_at	C11orf75
202	0.0003504	8.632	475.4655398	762.0158553	741.1188242	202109_at	ARFIP2
203	0.0003506	8.631	52.5898205	95.9969832	142.8296657	213664_at	SLC1A1
204	0.0003528	8.624	1127.1689454	2270.6584673	1541.4977987	209008_x_at	KRT8
205	0.0003543	8.619	327.634102	533.4624624	518.9008135	212830_at	MEGF9
206	0.0003569	8.61	43.5135935	51.2812748	60.9487673	211200_s_at	EFCAB2
207	0.0003577	8.607	1261.7123063	1559.3981351	2269.4429099	213702_x_at	ASAH1
208	0.0003621	8.593	365.4349234	595.4346669	504.3806016	217906_at	KLHDC2
209	0.0003629	8.59	625.7408465	711.3144913	915.4627325	218270_at	MRPL24
210	0.0003653	8.583	23.734802	90.9986602	35.5515029	207430_s_at	MSMB
211	0.0003755	8.55	273.8264149	155.3608189	261.1321602	212067_s_at	C1R
212	0.0003782	8.542	276.4742125	813.8817066	871.8214277	205225_at	ESR1
213	0.0003913	8.502	165.8815846	221.8730933	263.6212001	208933_s_at	LGALS8
214	0.0003945	8.493	245.0921736	333.4225963	306.5784014	217914_at	TPCN1
215	0.0003955	8.49	284.4990163	541.8558179	361.7465407	218640_s_at	PLEKHF2
216	0.0003957	8.489	112.9741443	109.6881379	198.1463631	219087_at	ASPN
217	0.0003974	8.484	339.2549945	170.3440699	460.292956	205334_at	S100A1
218	0.0003996	8.478	181.332885	132.5255772	333.7018498	212774_at	ZNF238

219	0.0004004	8.475	292.5233188	291.9996989	487.2958557	202450_s_at	CTSK
220	0.00041	8.447	835.5218559	2540.605126	1776.0531444	205009_at	TFF1
221	0.0004119	8.442	393.3345587	291.996099	362.4877281	202132_at	WWTR1
222	0.0004132	8.438	427.5011145	415.91836	306.0859835	216977_x_at	SNRPA1
223	0.0004214	8.415	110.3410899	72.17125	68.1370737	210093_s_at	MAGOH
224	0.0004223	8.413	220.5703786	283.4282238	304.1911574	213285_at	TMEM30B
225	0.000428	8.397	353.9755545	110.0643179	191.5810497	205044_at	GABRP
226	0.0004386	8.368	438.5477748	271.3114727	337.7448865	201012_at	ANXA1
227	0.0004397	8.366	213.1317839	331.9237347	388.7179404	221765_at	UGCG
228	0.0004403	8.364	75.567912	115.6260551	351.2489755	205440_s_at	NPY1R
229	0.0004542	8.328	201.0229895	342.3700425	430.7224551	210735_s_at	CA12
230	0.000466	8.298	307.6519384	380.8256958	425.9747824	205074_at	SLC22A5
231	0.0004673	8.295	190.7461536	305.9409749	219.8240702	221811_at	PERLD1
232	0.0004682	8.292	417.7044455	813.6408681	832.904028	204881_s_at	UGCG
233	0.0004714	8.284	346.4612869	299.8261408	251.1139473	218057_x_at	COX4NB
234	0.0004722	8.282	321.5030179	224.3125795	211.7993212	203693_s_at	E2F3
235	0.0004725	8.281	259.1006892	338.6476766	327.2443239	203279_at	EDEM1
236	0.0004753	8.275	628.7408479	519.015793	467.6464456	201930_at	MCM6
237	0.000479	8.266	88.6158299	49.9490629	62.8121381	207002_s_at	PLAGL1
238	0.0004847	8.252	257.0756772	228.0826131	315.0544543	202658_at	PEX11B
239	0.0004848	8.252	794.9114924	602.6576553	1173.1549466	200985_s_at	CD59
240	0.0004888	8.242	366.6886329	197.6361904	282.0826922	213060_s_at	CHI3L2
241	0.0004912	8.236	191.3032411	148.3474316	204.1295799	202440_s_at	ST5
242	0.0004914	8.236	323.113779	235.4122495	421.3517631	212463_at	CD59
243	0.0005041	8.206	279.7783979	522.6153448	644.9752219	201951_at	ALCAM
244	0.0005131	8.185	550.7149859	721.7952026	1354.5921338	212195_at	IL6ST
245	0.0005241	8.161	291.9609792	213.609483	196.9234963	202412_s_at	USP1
246	0.0005293	8.149	54.119197	78.4257865	54.0297542	203713_s_at	LLGL2
247	0.0005309	8.146	240.8857247	182.4262862	266.1328527	218285_s_at	BDH2
248	0.0005317	8.144	195.4127103	161.9059463	120.3244796	200783_s_at	STMN1
249	0.0005338	8.139	222.5273764	301.7570236	293.0101501	214109_at	LRBA
250	0.0005423	8.121	34.8441934	34.3279183	103.3545943	218541_s_at	C8orf4
251	0.0005428	8.12	40.6150966	100.8845488	48.9533104	210297_s_at	MSMB
252	0.0005505	8.104	466.6307531	612.5829243	685.5904426	201003_x_at	Kua-UEV /// LOC730052 /// RNPEP /// TMEM189 /// UBE2V1
253	0.0005531	8.098	169.5249612	80.1157506	140.5427941	823_at	CX3CL1
254	0.0005553	8.093	290.129579	182.5516267	228.4861503	209373_at	MALL
255	0.0005572	8.089	240.4840242	403.4412065	348.2221815	218164_at	SPATA20
256	0.0005702	8.062	406.6007414	730.9133347	709.5291495	202454_s_at	ERBB3
257	0.0005704	8.062	142.5848099	120.0275092	90.240814	203764_at	DLG7
258	0.0005783	8.046	1333.1197825	1247.9768044	1790.9157689	202252_at	RAB13
259	0.0005789	8.045	120.3033562	58.9921573	65.6660238	205157_s_at	KRT17
260	0.000596	8.011	737.541955	533.6860584	587.2166243	33132_at	CPSF1
261	0.0006051	7.993	71.8276995	83.9986571	107.930997	210108_at	
262	0.0006063	7.991	811.5039874	1224.4861974	1085.2973372	35666_at	SEMA3F

263	0.0006078	7.988	111.8411963	156.796882	140.5444133	208425_s_at	TANC2
264	0.0006128	7.979	710.6175133	1137.9770081	989.6312061	200605_s_at	PRKAR1A
265	0.000613	7.978	156.2493661	97.1775652	167.5914168	212328_at	LIMCH1
266	0.0006159	7.973	114.8636664	132.7964574	177.3591643	214077_x_at	MEIS3P1
267	0.0006175	7.97	476.3471932	872.6217912	915.6858239	203476_at	TPBG
268	0.000622	7.962	241.2249985	387.3461777	331.7115675	201462_at	SCRN1
269	0.0006243	7.957	195.7694233	243.3904649	318.39144	218788_s_at	SMYD3
270	0.0006379	7.932	582.9376801	937.6377938	810.1986982	214404_x_at	SPDEF
271	0.0006396	7.929	143.7591224	105.7331691	104.9031652	201564_s_at	FSCN1
272	0.0006402	7.928	341.788456	455.7336326	593.787782	202308_at	SREBF1
273	0.0006468	7.916	300.1512136	254.3964825	376.3173928	212136_at	ATP2B4
274	0.0006472	7.915	88.1064693	79.8737813	57.3196257	205393_s_at	CHEK1
275	0.0006477	7.914	760.9010613	880.7870732	1347.4636418	218450_at	HEBP1
276	0.0006483	7.913	275.351054	383.6614306	297.8961464	209048_s_at	ZMYND8
277	0.0006492	7.912	1077.1715567	1397.1973871	2033.9416036	210980_s_at	ASAH1
278	0.0006493	7.912	201.4699715	271.5936452	242.5838813	221918_at	PCTK2
279	0.0006567	7.899	813.3305858	1148.2263334	1210.6799291	222212_s_at	LASS2
280	0.0006841	7.851	239.8871141	397.1914142	263.5590701	213043_s_at	MED24
281	0.0006854	7.849	295.2622076	472.104347	449.3989942	219648_at	MREG
282	0.0006968	7.83	1441.7540104	1165.2548117	1067.256065	217724_at	SERBP1
283	0.000701	7.823	256.4360532	376.4622983	417.7870496	41660_at	CELSR1
284	0.0007012	7.823	494.2789713	790.1623262	734.2401202	218680_x_at	HYPK
285	0.0007092	7.809	1101.2356728	810.2426901	1652.0739572	212063_at	CD44
286	0.0007122	7.805	555.8606068	341.8279587	371.198096	221059_s_at	COTL1
287	0.0007156	7.799	177.44456	180.3007136	333.8415869	203929_s_at	MAPT
288	0.0007189	7.794	523.023728	820.8182397	704.7316732	220192_x_at	SPDEF
289	0.0007209	7.79	269.3593324	344.8047813	546.8552965	204863_s_at	IL6ST
290	0.0007229	7.787	697.2611326	981.9396444	975.2754102	221483_s_at	ARPP-19
291	0.0007231	7.787	444.1800849	314.0536783	356.7696682	213113_s_at	SLC43A3
292	0.0007285	7.778	433.1938868	727.3513333	710.7189395	212638_s_at	WWP1
293	0.0007361	7.766	155.882418	174.1299849	244.9757759	213224_s_at	LOC92482
294	0.0007419	7.757	406.9436634	539.6269602	574.7104168	208270_s_at	RNPEP
295	0.0007446	7.753	99.1946645	138.5326468	168.7796178	205186_at	DNALI1
296	0.0007487	7.747	125.8729333	124.5623816	164.9073814	221636_s_at	MOSC2
297	0.0007507	7.744	336.8385298	227.4681234	260.1569252	200827_at	PLOD1
298	0.0007523	7.741	355.565789	229.0150346	215.4159243	203560_at	GGH
299	0.0007564	7.735	163.4259171	236.7879918	237.4445606	212831_at	MEGF9
300	0.0007677	7.718	229.8395973	306.2314931	339.0674045	212492_s_at	JMJD2B
301	0.0007822	7.696	206.7457735	153.0444149	161.0671108	204751_x_at	DSC2
302	0.0007844	7.693	349.3291432	114.8223366	188.5134217	204259_at	MMP7
303	0.0007869	7.689	313.6796996	368.4130703	531.0919075	212196_at	IL6ST
304	0.000787	7.689	236.2254617	432.5389118	417.7700851	209365_s_at	ECM1
305	0.0007936	7.679	307.9429285	495.5154529	569.5867161	40093_at	BCAM
306	0.0007939	7.679	137.9603336	201.5590275	228.3729648	212209_at	MED13L
307	0.0007964	7.675	208.1779463	212.4372259	395.3247184	212594_at	PDCD4
308	8e-04	7.67	380.7954707	264.3361338	234.0215595	201795_at	LBR
309	0.0008276	7.631	362.4673588	396.6062536	469.7757845	212890_at	MGC15523

310	0.0008304	7.627	354.4330227	502.1479606	447.3482497	201276_at	RAB5B
311	0.0008421	7.611	305.810245	588.7591227	438.1207653	209114_at	TSPAN1
312	0.0008499	7.6	3021.9933256	2175.0959476	2376.6171769	200937_s_at	RPL5
313	0.0008566	7.591	129.1166961	184.9281639	167.4717692	203771_s_at	BLVRA
314	0.0008583	7.589	181.1006608	295.2745934	265.4686196	212462_at	MYST4
315	0.0008648	7.58	4074.074301	6111.6677217	6822.1773568	201754_at	COX6C
316	0.0008659	7.579	416.6547174	529.0465095	597.3472388	201454_s_at	NPEPPS
317	0.0008659	7.579	83.8506164	167.8967939	133.3582827	221577_x_at	GDF15
318	0.0008833	7.556	322.9367225	180.3142198	218.9185876	205548_s_at	BTG3
319	0.0008906	7.546	298.5067437	254.6027116	225.1687164	219588_s_at	NCAPG2
320	0.000895	7.541	65.8720106	80.2765041	100.9830411	220992_s_at	C1orf25
321	0.0009053	7.527	313.9011326	168.2389565	210.958076	213134_x_at	BTG3
322	0.0009225	7.506	460.032936	580.1890525	631.6489329	208774_at	CSNK1D
323	0.0009263	7.501	1441.9428787	1678.8572625	2469.0032036	215001_s_at	GLUL
324	0.000928	7.499	411.7660183	630.3298351	488.9682173	213315_x_at	CXorf40A
325	0.0009595	7.461	209.481247	172.5824038	148.5995108	203276_at	LMNB1
326	0.0009597	7.46	222.7566575	324.3201211	390.4200857	219051_x_at	METRNL
327	0.0009647	7.454	560.1770624	830.3453873	739.7099511	213441_x_at	SPDEF
328	0.0009722	7.445	124.2043688	202.3262734	237.2655429	214020_x_at	ITGB5
329	0.0009754	7.442	329.4053183	407.2216636	451.9433797	202996_at	POLD4
330	0.0009903	7.424	477.9040298	539.1253515	655.8654983	202322_s_at	GGPS1

Supplementary Table 7. Chromosomal regions harbouring a different DNA copy number in tumors with extreme chemotherapy sensitivity to paclitaxel-FAC chemotherapy.

Location	Width (Kb)	Probes	PCR (n=16) Freq Gain Loss	RD (n=48) Freq Gain Loss	Pval	FDR	Genes
3q25.1	0.06	2	44% 0%	10% 2%	0.0025	0.59	EIF2A
3q25.1-3q25.33	8604.76	106	44% 0%	8% 2%	0.002	0.59	AADAC MBNL1 MLF1 MME P2RY1 PTX3 RAP2B RARRES1 SHOX2 SSR3 CLRN1 KCNAB1 GMP5 SLC33A1 P2RY14 PLCH1 TIPARP SGEF PRO0471 GPR171 SCHIP1 RSRC1 P2RY13 GPR87 SUCNR1 LXN CCNL1 MFSD1 P2RY12 VEPH1 GFM1 MED12L CLRN1OS C3orf55 LOC152084 LOC152118 DHX36 LOC201651 IGSF10 C3orf33 LOC339894 AADACL2 GPR149 FLJ16641 hCG_1806964 LOC645843 FLJ46120 PA2G4P4 IQCJ LOC730091
3q27.1-3q27.2	1549.63	47	44% 0%	6% 2%	0.0013	0.59	AP2M1 CLCN2 DVL3 EHHADH EIF4G1 EPHB3 POLR2H PSMD2 THPO CHR1 EIF2B5 ECE2 ABCC5 ALG3 VPS8 ABCF3 PARL YEATS2 MAGEF1 MAP6D1 LOC90113 CAMK2N2 FAM131A HTR3C HTR3D HTR3E LOC285382 LOC339926 HSP90AA5P
3q28	232.28	6	44% 0%	8% 2%	0.0024	0.59	TP63 LEPREL1
3q28	588.61	13	38% 0%	8% 2%	0.0048	0.59	IL1RAP CLDN1 CLDN16 LEPREL1 UNQ846
6p25.3	302.73	9	25% 0%	2% 8%	0.0007	0.59	IRF4 EXOC2 HUS1B LOC642335
11p15.4	0.06	2	19% 6%	0% 17%	0.0014	0.59	ART5
11q14.1	0.06	2	25% 6%	2% 19%	0.0025	0.59	-
11q14.3	379.11	7	25% 0%	2% 21%	0.0023	0.59	GRM5 TYR NOX4
11q14.3-11q21	2555.22	38	25% 6%	0% 23%	0.0004	0.45	MRE11A MTNR1B MED17 GPR83 PANX1 C11orf54 C11orf75 JSD3 KIAA1731 SLC36A4 FAT3 CCDC67 HEPHL1 LOC390243
11q21	116.03	3	25% 6%	2% 23%	0.0008	0.59	PIWIL4
11q21	2007.16	30	25% 6%	0% 27%	0.0006	0.59	JRKL MTMR2 CEP57 SFRS2B ENDOD1 CWC15 JMJD2D CCDC82 MAML2 FAM76B SESN3
11q22.2-11q22.3	3462.22	59	19% 6%	2% 29%	0.0014	0.59	CASP1 CASP4 CASP5 GRIA4 MMP1 MMP3 MMP7 MMP8 MMP10 MMP12 MMP13 MMP20 ICEBERG MMP27 DYNC2H1 PDGFD DCUN1D5 COP1 TMEM123 CASP12 DDI1 INCA
18q21.32	27.98	4	6% 38%	8% 12%	0.004	0.59	MALT1

19q13.2	246.65	19	31% 0%	6% 2%	0.0014	0.59	BLVRB PLD3 SERTAD3 SERTAD1 PRX SPTBN4 SHKBP1 C19orf47 HIPK4
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