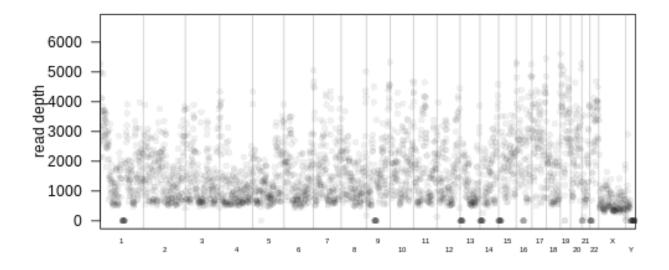
Report CORIANDR: ChrOmosomal abeRration Identifier AND Reporter in R

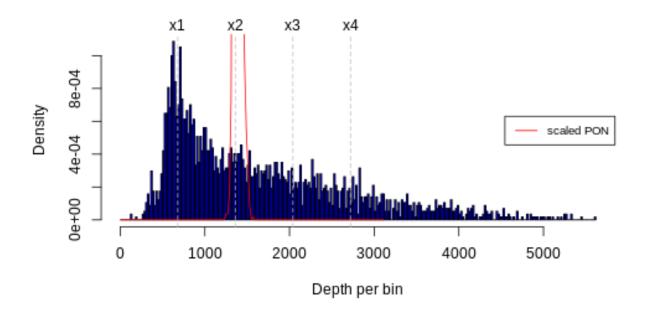
08-06-2021



Sample characteristics and mapping statistics

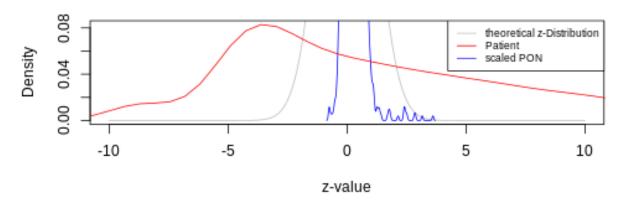
Sample characterisic	Value
Sample name	17839.munich
Sample gender	m
Raw read pairs	2.729.209
Average read length	150,12
Unique mapping pairs	2.533.166

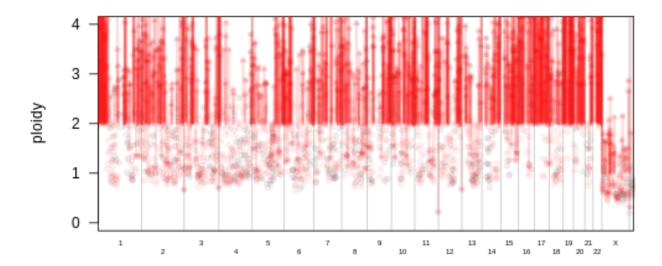
Distribution of sequencing depth per bin in sample



This graph shows the distribution of the bins according to the depth of the sequencing. The red curve represents the distribution of the PON scaled to the same depth. Ideally, the histogram and the red curve match completely. If not, this can indicate larger deletions (the first peak decreases) or larger amplifications (the third peak increases). The indications "x1, x2, x3, x4" indicate the number of copies.

Patient z-values compared to estimated PON distribution





Calculated numerical karyotype:

- add(1)(p36.33p34.1)
- add(1)(p32.3p32.3)
- del(1)(p32.1p32.1)
- del(1)(p31.2p31.2)
- del(1)(p21.1p21.1)
- add(1)(p13.3p13.3)
- add(1)(p11.1q11)
- add(1)(q21.1q21.1)
- add(1)(q21.3q23.1)
- add(1)(q32.1q32.1)
- add(1)(q32.3q32.3)
- add(1)(q42.11q42.13)
- add(1)(q42.3q42.3)
- add(1)(q44q44)
- add(2)(p25.3p25.3)
- add(2)(p25.1p25.1)
- add(2)(p23.3p23.1)
- add(2)(p21p21)
- add(2)(p15p15)
- add(2)(p13.3p13.1)
- del(2)(p12p12)
- add(2)(p11.2q11.2)
- add(2)(q12.3q13)
- add(2)(q14.2q14.2)
- add(2)(q21.1q21.1)
- del(2)(q22.1q22.3)
- del(2)(q23.2q23.2)
- del(2)(q31.3q31.3)
- add(2)(q35q35)
- del(2)(q36.2q36.2)
- add(2)(q37.1q37.3)
- del(3)(p26.3p26.2)
- add(3)(p25.3p25.1)
- del(3)(p24.1p24.1)
- add(3)(p21.32p21.1)

- add(3)(q11.1q11.2)
- del(3)(q12.1q12.1)
- del(3)(q13.11q13.12)
- del(3)(q13.32q13.32)
- $\operatorname{add}(3)(\operatorname{q}21.1\operatorname{q}21.3)$
- add(3)(q27.2q27.2)
- add(3)(q29q29)
- add(4)(p16.3p16.1)
- del(4)(p15.33p15.33)
- del(4)(p15.1p15.1)
- del(4)(p12p12)
- add(4)(p11q11)
- del(4)(q21.21q21.21)
- add(4)(q31.1q31.1)
- $\mathrm{del}(4)(\mathrm{q}33\mathrm{q}33)$
- add(4)(q35.1q35.1)
- add(5)(p15.33p15.33)
- add(5)(p11q11.1)
- del(5)(q13.1q13.1)
- del(5)(q21.3q22.1)
- del(5)(q22.3q22.3)
- add(5)(q31.1q31.1)
- add(5)(q31.3q31.3)
- add(5)(q33.1q33.1)
- add(5)(q35.1q35.3)
- add(6)(p25.3p25.2)
- add(6)(p22.1p21.1)
- del(6)(p12.3p12.3)
- add(6)(p11.1p11.1)
- del(6)(q12q12)
- del(6)(q23.1q23.1)
- add(6)(q25.1q25.1)
- add(6)(q25.3q25.3)
- $\mathrm{add}(6)(\mathrm{q}27\mathrm{q}27)$
- add(7)(p22.3p22.1)
- $\mathrm{del}(7)(\mathrm{p}21.3\mathrm{p}21.2)$

- add(7)(p13p12.3)
- add(7)(p11.2q11.21)
- add(7)(q11.23q11.23)
- $\operatorname{add}(7)(\operatorname{q}22.1\operatorname{q}22.1)$
- del(7)(q31.32q31.33)
- add(7)(q32.1q32.3)
- $\operatorname{add}(7)(\operatorname{q}34\operatorname{q}34)$
- add(7)(q36.1q36.3)
- add(8)(p23.3p23.3)
- add(8)(p23.1p23.1)
- $\mathrm{add}(8)(\mathrm{p}21.3\mathrm{p}21.3)$
- add(8)(p21.1p21.1)
- add(8)(p11.22q11.1)
- del(8)(q23.1q23.1)
- del(8)(q24.11q24.11)
- add(8)(q24.3q24.3)
- del(9)(p23p23)
- add(9)(p13.3p11.2)
- add(9)(q12q13)
- del(9)(q21.2q21.2)
- add(9)(q21.33q22.32)
- add(9)(q31.3q31.3)
- add(9)(q33.2q34.3)
- add(10)(p15.3p15.1)
- add(10)(p13p13)
- add(10)(p11.23p11.23)
- add(10)(p11.1q11.22)
- del(10)(q21.1q21.1)
- add(10)(q21.3q22.1)
- add(10)(q22.3q22.3)
- add(10)(q23.32q23.32)
- add(10)(q24.1q24.32)
- del(10)(q24.33q24.33)
- add(10)(q26.11q26.3)
- add(11)(p15.5p15.4)
- del(11)(p14.3p14.1)

- del(11)(p12p12)
- add(11)(p11.2q11)
- add(11)(q12.2q13.5)
- add(11)(q23.3q23.3)
- add(11)(q24.2q24.2)
- add(12)(p13.33p13.31)
- add(12)(p11.21q11)
- add(12)(q13.11q13.3)
- del(12)(q21.1q21.1)
- del(12)(q21.32q21.32)
- add(12)(q24.11q24.13)
- add(12)(q24.22q24.31)
- add(12)(q24.33q24.33)
- add(13)(p11.1q12.2)
- del(13)(q13.2q13.2)
- add(13)(q14.12q14.12)
- del(13)(q21.2q21.2)
- del(13)(q31.3q31.3)
- add(13)(q32.2q32.2)
- del(13)(q33.1q33.2)
- add(13)(q34q34)
- add(14)(p11.1p11.1)
- del(14)(q11.1q11.1)
- add(14)(q11.2q11.2)
- add(14)(q23.2q24.3)
- del(14)(q31.1q31.2)
- add(14)(q32.11q32.33)
- add(15)(p11.1q11.2)
- ${\rm add}(15)({\rm q}13.1{\rm q}13.2)$
- add(15)(q15.1q15.3)
- add(15)(q22.1q22.1)
- add(15)(q22.31q25.2)
- add(15)(q26.1q26.1)
- add(15)(q26.3q26.3)
- add(16)(p13.3p13.3)
- add(16)(p13.13q11.2)

- $\operatorname{add}(16)(\operatorname{q} 13\operatorname{q} 13)$
- add(16)(q22.1q22.2)
- add(16)(q23.1q24.3)
- add(17)(p13.3p13.1)
- add(17)(p11.2q21.33)
- add(17)(q23.1q25.3)
- add(18)(p11.23q11.2)
- del(18)(q21.31q21.31)
- add(18)(q23q23)
- add(19)(p13.3p13.11)
- $\operatorname{add}(19)(\operatorname{p11p11})$
- add(19)(q12q13.43)
- add(20)(p13p13)
- $\rm{del}(20)(p12.2p12.2)$
- add(20)(p11.21q12)
- add(20)(q13.12q13.2)
- del(20)(q13.31q13.31)
- add(20)(q13.32q13.33)
- $\operatorname{add}(21)(\operatorname{p12p11.1})$
- del(21)(q21.3q21.3)
- add(21)(q22.11q22.3)
- add(22)(p11.2q13.33)
- add(X)(p22.33q28)
- add(Y)(p11.31q12)

Genes affected by CNVs*:

id	sym	bol chr		start	end abe	rration
237	ENSG00000116251	RPL22	chr1	6.185.020	6.209.389	amp
381	ENSG000001198793	MTOR	chr1	11.106.535	11.262.507	amp
545	ENSG00000142627	EPHA2	chr1	16.124.337	16.156.069	amp
882	ENSG00000117713	ARID1A	chr1	26.693.236	26.782.104	amp
1176	ENSG00000054118	THRAP3	chr1	36.224.432	36.305.357	amp
1201	ENSG00000163874	ZC3H12A	chr1	37.474.580	37.484.377	amp
1258	ENSG00000127603	MACF1	chr1	39.081.316	39.487.177	amp
1397	ENSG00000117400	MPL	chr1	43.337.849	43.352.772	amp
1891	ENSG00000162434	JAK1	chr1	64.833.229	64.966.549	amp
2827	ENSG00000134250	NOTCH2	chr1	119.911.553	120.100.779	amp
2967	ENSG00000265972	TXNIP	chr1	145.992.435	145.996.600	amp
3387	ENSG00000160685	ZBTB7B	chr1	155.002.630	155.018.522	amp
3442	ENSG00000143622	RIT1	chr1	155.897.808	155.911.404	amp
3560	ENSG00000163554	SPTA1	chr1	158.610.706	158.686.715	del
4315	ENSG00000081237	PTPRC	chr1	198.638.457	198.757.476	del
4392	ENSG00000163435	ELF3	chr1	202.007.945	202.017.183	amp
4441	ENSG00000159388	BTG2	chr1	203.305.491	203.309.602	amp
4895	ENSG00000163041	H3F3A	chr1	226.061.851	226.072.007	amp
5025	ENSG00000069248	NUP133	chr1	229.440.259	229.508.341	amp
5713	ENSG00000134323	MYCN	chr2	15.940.550	15.947.007	amp
5790	ENSG00000084674	APOB	chr2	21.001.429	21.044.073	del
5860	ENSG00000119772	DNMT3A	chr2	25.227.855	25.342.590	amp
5866	ENSG00000143970	ASXL2	chr2	25.733.753	25.878.516	amp
6130	ENSG00000115904	SOS1	chr2	38.981.396	39.124.345	amp
6183	ENSG00000152518	ZFP36L2	chr2	43.222.402	43.226.606	amp
6238	ENSG00000116016	EPAS1	chr2	46.293.667	46.386.697	amp
6271	ENSG00000095002	MSH2	chr2	47.402.969	47.663.146	amp
6275	ENSG00000116062	MSH6	chr2	47.695.530	47.810.101	amp
6450	ENSG00000082898	XPO1	chr2	61.477.849	61.538.626	amp
6626	ENSG00000169564	PCBP1	chr2	70.087.454	70.089.203	amp
7505	ENSG00000153094	BCL2L11	chr2	111.119.378	111.168.445	amp
8082	ENSG00000121989	ACVR2A	chr2	147.844.517	147.930.826	del
8195	ENSG00000115170	ACVR1	chr2	157.736.444	157.875.862	del
8499	ENSG00000116044	NFE2L2	chr2	177.227.595	177.392.697	del
8828	ENSG00000064012	CASP8	chr2	201.233.443	201.287.711	amp
9038	ENSG00000178568	ERBB4	chr2	211.375.717	212.538.841	del
9407	ENSG00000187514	PTMA	chr2	231.706.895	231.713.541	amp
9614	ENSG00000130294	KIF1A	chr2	240.713.761	240.821.036	amp
9796	ENSG00000134086	VHL	chr3	10.141.008	10.152.220	amp
9848	ENSG00000132155	RAF1	chr3	12.583.601	12.664.226	amp
10067	ENSG00000163513	TGFBR2	chr3	30.606.502	30.694.142	del
10180	ENSG00000172936	MYD88	chr3	38.138.478	38.143.022	amp
10252	ENSG00000168036	CTNNB1	chr3	41.194.741	41.260.096	amp
10405	ENSG00000181555	SETD2	chr3	47.016.429	47.163.967	amp
10504	ENSG00000067560	RHOA	chr3	49.359.145	49.412.998	amp
10630	ENSG00000163930	BAP1	chr3	52.401.008	52.410.008	amp
10638	ENSG00000163939	PBRM1	chr3	52.545.352	52.685.917	amp
11043	ENSG00000044524	EPHA3	chr3	89.107.621	89.482.134	del
11346	ENSG00000181722	ZBTB20	chr3	114.314.501	115.147.271	del
11808	ENSG00000051382	PIK3CB	chr3	138.652.699	138.834.938	amp

id	sym	bol chr		start	end abe	rration
11814	ENSG00000183770	FOXL2	chr3	138.944.224	138.947.137	amp
12922	ENSG00000068078	FGFR3	chr4	1.793.293	1.808.872	amp
13425	ENSG00000035928	RFC1	chr4	39.287.456	39.366.375	amp
13923	ENSG00000163631	ALB	chr4	73.397.114	73.421.482	del
14364	ENSG00000168769	TET2	chr4	105.145.875	105.279.816	del
15374	ENSG00000168310	IRF2	chr4	184.387.729	184.474.550	amp
15551	ENSG00000164362	TERT	chr5	1.253.147	1.295.047	amp
16045	ENSG00000168685	IL7R	chr5	35.852.695	35.879.603	del
16306	ENSG00000134352	IL6ST	chr5	55.935.095	55.995.022	amp
16472	ENSG00000145675	PIK3R1	chr5	68.215.756	68.301.821	del
16825	ENSG00000145715	RASA1	chr5	87.267.888	87.391.931	del
17123	ENSG00000134982	APC	chr5	112.707.498	112.846.239	del
17886	ENSG00000182578	CSF1R	chr5	150.053.291	150.113.372	amp
17889	ENSG00000113721	PDGFRB	chr5	150.113.839	150.155.872	amp
18076	ENSG00000145863	GABRA6	chr5	161.547.063	161.702.593	del
18176	ENSG00000181163	NPM1	chr5	171.387.116	171.411.137	amp
18309	ENSG00000165671	NSD1	chr5	177.133.025	177.300.215	amp
18512	ENSG00000164379	FOXQ1	chr6	1.312.098	1.314.758	amp
18937	ENSG00000187837	HIST1H1C	chr6	26.055.787	26.056.428	amp
18943	ENSG00000168298	HIST1H1E	chr6	26.156.354	26.157.107	amp
19187	ENSG00000206503	HLA-A	chr6	29.941.260	29.945.884	amp
19285	ENSG00000234745	HLA-B	chr6	31.269.491	31.357.188	amp
19497	ENSG00000161904	LEMD2	chr6	33.771.202	33.789.130	amp
19585	ENSG00000124762	CDKN1A	chr6	36.676.460	36.687.339	amp
19600	ENSG00000137193	PIM1	chr6	37.170.152	37.175.428	amp
20143	ENSG00000156508	EEF1A1	chr6	73.515.750	73.523.797	amp
20713	ENSG00000047936	ROS1	chr6	117.288.300	117.425.855	del
21001	ENSG00000118503	TNFAIP3	chr6	137.867.214	137.883.312	amp
21164	ENSG00000131023	LATS1	chr6	149.658.153	149.718.105	amp
21384	ENSG00000085511	MAP3K4	chr6	160.991.727	161.117.385	amp
21587	ENSG00000164853	UNCX	chr7	1.232.872	1.237.326	amp
21626	ENSG00000198286	CARD11	chr7	2.906.141	3.043.945	amp
21681	ENSG00000122512	PMS2	chr7	5.970.925	6.009.106	amp
21696	ENSG00000136238	RAC1	chr7	6.374.527	6.403.967	amp
22481	ENSG00000146648	EGFR	chr7	55.019.017	55.211.628	amp
22928	ENSG00000263001	GTF2I	chr7	74.650.231	74.760.692	amp
23074	ENSG00000019991	HGF	chr7	81.699.010	81.770.438	del
23659	ENSG00000105976	MET	chr7	116.672.196	116.798.386	del
23865	ENSG00000128602	SMO	chr7	129.188.633	129.213.545	amp
24082	ENSG00000157764	BRAF	chr7	140.719.327	140.924.928	amp
24328	ENSG00000055130	CUL1	chr7	148.697.914	148.801.110	amp
24329	ENSG00000106462	EZH2	chr7	148.807.383	148.884.321	amp
24436	ENSG00000106615	RHEB	chr7	151.466.012	151.520.120	amp
24449	ENSG00000055609	KMT2C	chr7	152.134.922	152.436.005	amp
27499	ENSG00000179388	EGR3	chr8	22.687.659	22.693.480	amp
27807	ENSG00000077782	FGFR1	chr8	38.400.215	38.468.834	amp
28554	ENSG00000176571	CNBD1	chr8	86.866.442	87.615.219	del
28965	ENSG00000164754	RAD21	chr8	116.845.935	116.874.866	del
29540	ENSG00000096968	JAK2	chr9	4.984.390	5.128.183	del
29607	ENSG00000153707	PTPRD	chr9	8.314.246	10.612.723	del
29781	ENSG00000147889	CDKN2A	chr9	21.967.753	21.995.301	del
30060	ENSG00000196092	PAX5	chr9	36.833.269	37.034.268	amp

id	sym	bol chr		start	end abe	rration
30532	ENSG00000156052	GNAQ	chr9	77.716.087	78.031.458	del
30792	ENSG00000158079	PTPDC1	chr9	94.030.794	94.109.856	amp
30834	ENSG00000185920	PTCH1	chr9	95.442.980	95.517.057	amp
31216	ENSG00000136869	TLR4	chr9	117.704.175	117.724.735	del
31334	ENSG00000119414	PPP6C	chr9	125.146.573	125.189.939	amp
31438	ENSG00000197694	SPTAN1	chr9	128.552.558	128.633.662	amp
31516	ENSG00000097007	ABL1	chr9	130.713.946	130.887.675	amp
31558	ENSG00000165699	TSC1	chr9	132.891.348	132.946.874	amp
31611	ENSG00000186350	RXRA	chr9	134.317.098	134.440.585	amp
31616	ENSG00000130635	COL5A1	chr9	134.641.774	134.844.843	amp
31674	ENSG00000148400	NOTCH1	chr9	136.494.433	136.546.048	amp
31832	ENSG00000174775	HRAS	chr11	532.242	537.287	amp
31870	ENSG00000171776	MUC6	chr11	1.012.823	1.036.718	amp
33142	ENSG00000198561	CTNND1	chr11	57.753.243	57.819.546	amp
33487	ENSG00000138901 ENSG00000168066	SF1	chr11	64.764.606	64.778.786	amp
33490	ENSG00000133895	MEN1	chr11	64.803.510	64.811.294	amp
33764	ENSG00000139099 ENSG00000110092	CCND1	chr11	69.641.087	69.654.474	amp
33855	ENSG00000110032 ENSG00000165458	INPPL1	chr11	72.223.701	72.239.147	amp
34405	ENSG00000103438 ENSG000000082175	PGR	chr11	101.029.624	101.130.524	$\frac{amp}{del}$
34754	ENSG00000032175 ENSG00000118058	KMT2A	chr11	118.436.464	118.526.832	amp
35859	ENSG00000115035 ENSG00000165731	RET	chr10	43.077.069	43.130.351	amp
36150	ENSG00000159791 ENSG00000150347	ARID5B	$\frac{\text{chr}_{10}}{\text{chr}_{10}}$	61.901.684	62.096.944	$\frac{amp}{del}$
36640	ENSG00000130347 ENSG00000171862	PTEN	$\frac{\text{chr}_{10}}{\text{chr}_{10}}$	87.863.625	87.971.930	amp
37085	ENSG00000171802 ENSG00000108055	SMC3	$\frac{\text{chr}_{10}}{\text{chr}_{10}}$	110.567.691	110.604.636	amp
37003 37122	ENSG00000108033 ENSG00000148737	TCF7L2	$\frac{\text{chr}_{10}}{\text{chr}_{10}}$	112.950.247	113.167.678	
37379	ENSG00000148737 ENSG00000170430	MGMT	$\frac{\text{chr}_{10}}{\text{chr}_{10}}$	129.467.190	129.770.983	amp
37655	ENSG00000170430 ENSG00000111642	CHD4	$\frac{\text{chr}_{10}}{\text{chr}_{12}}$	6.570.082	6.614.524	amp
37950	ENSG00000111042 ENSG00000111276	CDKN1B	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	12.715.058	12.722.369	amp
38282	ENSG00000111270 ENSG00000188375	H3F3C	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	31.791.185	31.792.298	amp
38444	ENSG00000188979	ARID2	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	45.729.706	45.908.040	$\frac{amp}{del}$
38568	ENSG00000167548	KMT2D	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	49.018.975	49.059.774	
38922	ENSG00000107348 ENSG00000065361	ERBB3	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	56.076.799	56.103.505	amp
39027	ENSG0000003301 ENSG00000135446	CDK4	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	57.747.727	57.756.013	amp
39959	ENSG00000139440 ENSG00000179295	PTPN11	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	112.418.351	112.509.913	
40154	ENSG00000179293 ENSG00000135100	HNF1A	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	120.978.543	121.002.512	amp
40194 40502	ENSG00000133100 ENSG00000177084	POLE	$\frac{\text{chr}_{12}}{\text{chr}_{12}}$	132.623.753	132.687.365	amp
40605	ENSG00000177034 ENSG00000121741	ZMYM2	$\frac{\text{chr}_{12}}{\text{chr}_{13}}$	19.958.670	20.091.829	amp
40632	ENSG00000121741 ENSG00000150457	LATS2	chr13	20.973.036	21.061.586	amp
40032 40795	ENSG00000130437 ENSG00000122025	FLT3	chr13	28.003.274	28.100.592	amp
40793 41134	ENSG00000122025 ENSG00000139687	RB1	$\frac{\text{chr}_{13}}{\text{chr}_{13}}$	48.303.726	48.599.436	$\frac{\mathrm{amp}}{\mathrm{del}}$
41145	ENSG00000153007 ENSG00000152207	CYSLTR2	chr13	48.653.711	48.711.226	del
421143	ENSG00000192207 ENSG00000100888	CHD8	$\frac{\text{chr}_{13}}{\text{chr}_{14}}$	21.385.194	21.456.126	amp
42114 42295	ENSG00000100333 ENSG00000129474	AJUBA	$\frac{\text{chr}_{14}}{\text{chr}_{14}}$	21.903.194 $22.971.177$	21.430.120 $22.982.551$	amp
42293 42601	ENSG00000129474 ENSG00000129514	FOXA1	$\frac{\text{chr}_{14}}{\text{chr}_{14}}$	37.589.552	37.596.059	$\frac{\mathrm{amp}}{\mathrm{del}}$
43055	ENSG00000125914 ENSG00000125952	MAX	$\frac{\text{chr}_{14}}{\text{chr}_{14}}$	65.006.174	65.102.695	
43033 43128	ENSG00000125952 ENSG00000185650	ZFP36L1	chr14	68.787.660	68.796.253	amp
43126 43559	ENSG00000185050 ENSG00000066427	ATXN3	$\frac{\text{cm } 14}{\text{chr} 14}$	92.044.496	92.106.621	amp
43627	ENSG00000000427 ENSG00000100697	DICER1	$\frac{\text{cm } 14}{\text{chr} 14}$	95.086.228	95.158.010	amp
43027 43902	ENSG00000100097 ENSG00000131323	TRAF3	$\frac{\text{cm } 14}{\text{chr} 14}$	102.777.476	102.911.500	amp
43902 43977	ENSG00000131323 ENSG00000142208	AKT1	chr14	104.769.349	102.911.500 $104.795.751$	amp
43977	ENSG00000142208 ENSG00000174197	MGA	chr14	41.621.224	41.773.081	amp
44099	ENSG00000174197 ENSG00000166710	B2M	chr15	41.021.224 44.711.487	41.773.081	amp
40011	T1/0/200000100110	12411	CH 119	44.111.401	44.110.011	amp

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45320	ENSG00000157450	RNF111	chr15	58.865.175	59.097.419	amp
45508	ENSG00000169032	MAP2K1	chr15	66.386.817	66.492.312	amp
45751	ENSG00000169375	SIN3A	chr15	75.369.379	75.455.842	amp
46151	ENSG00000182054	IDH2	chr15	90.083.045	90.102.504	amp
46467	ENSG00000103126	AXIN1	chr16	287.440	352.723	amp
46622	ENSG00000103197	TSC2	chr16	2.047.967	2.089.491	amp
46775	ENSG00000005339	CREBBP	chr16	3.725.054	3.880.726	amp
47953	ENSG00000166164	BRD7	chr16	50.313.487	50.368.934	amp
47966	ENSG00000083799	CYLD	chr16	50.742.050	50.801.935	amp
48110	ENSG00000102900	NUP93	chr16	56.730.118	56.850.286	amp
48288	ENSG00000067955	CBFB	chr16	67.028.984	67.101.058	amp
48327	ENSG00000102974	CTCF	chr16	67.562.467	67.639.177	amp
48396	ENSG00000039068	CDH1	chr16	68.737.292	68.835.541	amp
48539	ENSG00000140836	ZFHX3	chr16	72.782.885	73.891.871	amp
49313	ENSG00000132522	GPS2	chr17	7.311.324	7.315.564	amp
49360	ENSG00000141510	TP53	chr17	7.661.779	7.687.550	amp
49370	ENSG00000170004	CHD3	chr17	7.884.806	7.912.760	amp
49580	ENSG00000141027	NCOR1	chr17	16.029.157	16.218.185	amp
50158	ENSG00000196712	NF1	chr17	31.094.927	31.382.116	amp
50479	ENSG00000167258	CDK12	chr17	39.461.486	39.564.907	amp
50489	ENSG00000141736	ERBB2	chr17	39.687.914	39.730.426	amp
50518	ENSG00000131759	RARA	chr17	40.309.180	40.357.643	amp
50539	ENSG00000213424	KRT222	chr17	40.654.665	40.665.181	amp
50718	ENSG00000012048	BRCA1	chr17	43.044.295	43.170.245	amp
50883	ENSG00000120071	KANSL1	chr17	46.029.916	46.225.389	amp
51040	ENSG00000121067	SPOP	chr17	49.598.884	49.678.163	amp
51230	ENSG00000108375	RNF43	chr17	58.352.500	58.417.595	amp
51319	ENSG00000170836	PPM1D	chr17	60.600.183	60.666.280	amp
51422	ENSG00000007312	CD79B	chr17	63.928.740	63.932.354	amp
51474	ENSG00000120063	GNA13	chr17	65.009.289	65.056.740	amp
51479	ENSG00000168646	AXIN2	chr17	65.528.563	65.561.648	amp
51550	ENSG00000108946	PRKAR1A	chr17	68.511.780	68.551.319	amp
51596	ENSG00000125398	SOX9	chr17	72.121.020	72.126.416	amp
51776	ENSG00000161547	SRSF2	chr17	76.734.115	76.737.374	amp
52042	ENSG00000141579	ZNF750	chr17	82.829.434	82.840.022	amp
52137	ENSG00000177426	TGIF1	chr18	3.411.608	3.459.978	amp
52741	ENSG00000152217	SETBP1	chr18	44.680.173	45.068.510	del
53512	ENSG00000101333	PLCB4	chr20	9.068.763	9.481.242	del
53638	ENSG00000125846 ENSG00000171456	ZNF133	chr20	18.288.283	18.316.996	amp
53921		ASXL1	chr20	32.358.330	32.439.319	amp
54089	ENSG00000197122	SRC AURKA	$\frac{\text{chr}20}{\text{chr}20}$	37.344.685	37.406.050	amp
54499 54566	ENSG00000087586 ENSG00000087460	GNAS	$\frac{\text{chr20}}{\text{chr20}}$	56.369.389 58.839.718	56.392.337	amp
54791	ENSG00000087400 ENSG00000099821	POLRMT	$\frac{\text{cm 20}}{\text{chr19}}$	617.221	58.911.192 633.537	amp
					1.228.435	amp
54831 54850	ENSG00000118046 ENSG00000071626	STK11 DAZAP1	$\frac{\text{chr}19}{\text{chr}19}$	1.177.558 $1.407.560$		amp
54850 54949	ENSG00000071626 ENSG00000088256	GNA11	chr19	$1.407.569 \\ 3.094.362$	$1.435.687 \\ 3.123.999$	amp
54949 54995	ENSG00000167658	EEF2	chr19	3.094.362 $3.976.056$	3.123.999	amp
54995 55002	ENSG00000107058 ENSG00000060566	CREB3L3	chr19	4.153.631	4.173.054	amp
55002 55117	ENSG0000000506 ENSG00000125726	CREDSES CD70	chr19	6.583.183	6.604.103	amp
55320	ENSG00000125720 ENSG00000079999	KEAP1	chr19	10.486.125	10.503.558	amp
55345	ENSG00000079999 ENSG00000127616	SMARCA4	chr19	10.480.125 $10.960.825$	10.505.558 $11.079.426$	amp
00040	E110/00/00/01/2/010	SMAIIOA4	011113	10.300.020	11.013.440	amp

id	sym	bol chr		start	end abe	rration
55511	ENSG00000141837	CACNA1A	chr19	13.206.442	13.633.025	amp
55745	ENSG00000105639	JAK3	chr19	17.824.780	17.848.071	amp
55762	ENSG00000105647	PIK3R2	chr19	18.153.163	18.170.532	amp
56102	ENSG00000105173	CCNE1	chr19	29.811.991	29.824.312	amp
56171	ENSG00000245848	CEBPA	chr19	33.299.934	33.302.534	amp
56285	ENSG00000272333	KMT2B	chr19	35.718.019	35.738.878	amp
56638	ENSG00000079432	CIC	chr19	42.268.537	42.295.797	amp
56791	ENSG00000104884	ERCC2	chr19	45.349.837	45.370.918	amp
56882	ENSG00000160007	ARHGAP35	chr19	46.918.676	47.005.077	amp
56943	ENSG00000105464	GRIN2D	chr19	48.394.875	48.444.931	amp
57240	ENSG00000105568	PPP2R1A	chr19	52.190.048	52.229.518	amp
60103	ENSG00000156304	SCAF4	chr21	31.671.033	31.732.075	amp
60187	ENSG00000159216	RUNX1	chr21	34.787.801	36.004.667	amp
60367	ENSG00000160201	U2AF1	chr21	43.092.956	43.107.587	amp

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Chromosome Plots:

