

CREBBP HAT domain mutations prevail in relapse cases of high hyperdiploid childhood acute lymphoblastic leukemia

Supplementary Information for: Inthal A. et al.

Materials and Methods

Table S1. Primer combinations for mutational screening of *CREBBP*

Primer	Sequence	Primer	Sequence
CREBBPex1-fw1	ggcggcaccatgttctc	CREBBPex18-fw1	gttggaatggaagtattttgg
CREBBPex1-rev1	tcggtatccgcgaccac	CREBBPex18-rev1	caccagacagcagattgcac
CREBBPex2-fw1	tgctagtgttcgtgctgaatg	CREBBPex19-rev1	cacccggcctgaaattg
CREBBPex2-fw2	aaagcaagtgggctgg	CREBBPex18-fw2	cccttggatattgctgtggac
CREBBPex2-rev1	gagtggcacgtggagagc	CREBBPex19-rev3	ggttctctatgicgccaagg
CREBBPex3-fw1	attcccaggcccttc	CREBBPex20-fw1	ctgctctgattggtgcttc
CREBBPex3-rev1	atctgggttctctcctatcacc	CREBBPex20-rev1	gcaaggaagtcaaaatggcac
CREBBPex4-fw1	atcagctttgctttgtttgag	CREBBPex21-fw1	ttgagatttaaggggccatc
CREBBPex4-rev1	ccggagcctatgaaccag	CREBBPex21-rev1	cccacaaccactccataag
CREBBPex5-fw1	taccatttctatggaatctggc	CREBBPex22-fw1	accagagaacaaggtgtgg
CREBBPex5-rev1	tcataaccctgcccactc	CREBBPex23-rev1	gagaggaaccaagaacaatgg
CREBBPex6-fw1	ttgtcctcactactgctaggc	CREBBPex24-fw1	ttccgtgttgagAACattag
CREBBPex6-rev1	ctgaaaactgccttgggttc	CREBBPex24-rev1	cgctgctgcaaagtcttg
CREBBPex7-fw1	tggtggcatgttggtatctg	CREBBPex25-fw1	catgcctccgctcatctg
CREBBPex8-rev1	gacatagagtgtgggaatctctgg	CREBBPex25-rev1	tttaatccccatgaaggctcac
CREBBPex9-fw1	ctggacgaaaccccatgctc	CREBBPex26-fw1	ttgacgctgaatgacagag
CREBBPex9-rev1	aggagtctgtcccaactacatagattc	CREBBPex26-rev1	tggaagaggagcctttggag
CREBBPex10-fw1	aagaatgtggccttctggtg	CREBBPex27-fw2	ttactctgtcctggcttagtcc
CREBBPex11-fw1	ctggcattggaacacacg	CREBBPex27-rev1	gCGaatgcaagaaaaggc
CREBBPex11-rev1	atcagcaaaaaggaatgaaag	CREBBPex28-fw1	catgggactctgccacacc
CREBBPex12-fw1	tcaccacccacattg	CREBBPex28-rev2	acggagacaccaccagg
CREBBPex12-rev1	gaaccacaggattctcaagtgc	CREBBPex29-fw1	tgacactttggcctgagc
CREBBPex13-fw1	aggaaggcaggatgtgag	CREBBPex29-rev1	cttccctcccaccacagac
CREBBPex13-rev1	ggactacaggacaaagggtggag	CREBBPex30-fw1	agccacctgcctattctgc
CREBBPex14-fw1	atcacatttcaaacgggg	CREBBPex30-rev1	agtCagtgcagccaccatc
CREBBPex14-rev1	aaccaccgCgctg	CREBBPex31a-fw1	cccagactagcgggtggag
CREBBPex15-fw1	cctctggctgctgttacctc	CREBBPex31a-rev1	agcgtgggtgagatgc
CREBBPex15-rev1	aaccCCgaaccacattc	CREBBPex31b-fw1	cagcagccatgCag
CREBBPex16-fw1	ggaagagaagaggaatcataaatgc	CREBBPex31b-rev1	cctggtactaagggacgtgg
CREBBPex16-rev1	aatctccacatggaatcctaac	CREBBPex31c-fw1	atgaagcagcagattgggtc
CREBBPex17-fw1	taacggtgatggacgagagc	CREBBPex31c-rev1	ttaaacaatccacccttc
CREBBPex17-rev1	atgtgcttccctgctcag		

Validation of *CREBBP* copy number aberrations by MLPA

Multiplex ligation dependent probe amplification (MLPA) was used to verify genomic alterations of *CREBBP* with SALSA MLPA kit P313-A1 *CREBBP* (MRC Holland, Amsterdam, The Netherlands). Fragment analysis was performed by VBC Biotech Service GmbH (Vienna, Austria) and data analysis was done with Coffalyzer V9.4 (MRC Holland, Amsterdam, The Netherlands).

Results

Table S2. Genomic Imbalances / UPIDs by SNP array of 16 HD ALL relapse cases

Pt #	copy number SNParray	UPID
1D	53; +4,+5q,+6pqqpart,+8,+10,+14,-17p,+17q,+18,+2x21,+ X	6qqpart, 7, 9; X
1R	54; +4,+2x5qpart,+6pqqpart,-6qqpart,+8,+10,+14,-17p,+17q,+18,+2x21,+ X	6qqpart, 7, 9; X
2D	54; +4,+6,+8,+14,+17,+18,+21,+X	9p
2R	50; +6,+8ppartq,+14,+17q,+21,+X	9p, 18
3D	50; 9qqpart,+14,+17qqpart,+18p,+18qqpart,+2x21,+ X	18qqpart; X
3R	50;-1qqpart,9qqpart,+14,+17qqpart,+18ppart,+18qqpart,+2x21,+ X	18qqpart; X
4D	55; +4,+6,+14,+17,+18,2x+21,+22, X	X
4R	53; +1qqpart,+2qqpart,+4,+6ppartq,+14qqpart,+17,+18,+2x21,+22,+ X	14qqpart ; X
5D	54; +6,+9,+10,+2x14,+18,+ 2x21,+X	no UPID
5R	52; +1qqpart,+6,+9,+10,+14,+18,+21,+X	no UPID
6D	55; +4,+6ppart,+8,+9,+14,+17,+18,+2x21,+X	no UPID
6R	54; +4,+6ppart,+8,-9p,+9q,+14,+17,+18,+2x21,+X	no UPID
7D	52; +4,+8,+10,+14,-20,+2x21,+X	no UPID
7R	53; +8,-9p,+9q,+10,+14,+16,+2x21,+X	16p (UPIT); 20
8D	57; +1qqpart,+4,+6,-7p,+7q,+10,+11pppart,+2x14,+18,+2x21,+2xX	1, 1qqpart (UPIT)
8R	57; +1qqpart,+4,+5qqpart,+6,-7p,+7q,+10,+11pppart,+2x14,+18,+2x21,+2xX	1, 1qqpart (UPIT)
9D	59; +1q,+4,+5p+qpart,+6,+8,+2x10,+11,+12,+14,+17qqpart,+2x18,+2x21,+ X	5q; X
9R	60,+2x1qqpart,+1qqpart,+4,+2x5pppart,+6,+7p+qpart,+8,+2x10,+11,+12pppartq,+14,+16,+2x17qqpart,+2x18,+2x21,+X	5q; X
10D	55; +6,+10,+2x14,+2x18,+2x21,+ X	X
10R	55; +6,+10,+2x14,+2x18,+2x21,+ X	X
11D	52; +4,+6,+10,+14,-17p,+17q,+18,-20qqpart,+2x21,+X	X
11R	51; +4,+6,+8,-9p,+10,+14qqpart,-17ppart,+17q,-20qqpart,+2x21,+X	X, 17ppart, 18
12D	58; +1qqpart,+4,+6,+8,+2x10,+11,-12pppart,+2x14,+17part,+18,+2x21,+X	X
12R	58; +1qqpart,+4,+6,+8,+9,+2x10,+11,+2x14,+17part,+18p+qpart,+2x21,+X	18qqpart; X
13D	54; +1qqpart,+4,+6,+9,+10,+17qqpart,+18,+2x21,+ X	X
13R	53;+ 2x 1qqpart,+4,+6,+10,+17qqpart,+18,+2x21,+ X	X
14D	55; +6,+8,+10,+14,+17,+18,+ 2x21,+X	2, 8qqpart, 19; X
14R	51; +6pqqpart,+8,-9ppart,+9qqpart,+10pppartq,+14,+17pppartq,+18qqpart,+2x21,+X	2, 8qqpart, 10pppart, 18pppart, 19; X
15D	53; +4,+8,+14,+17,+18,+21,+X	8qqpart, X
15R	54; +4,+8,-9ppart,+14,+17,+18,+2x21,+X	8qqpart, 16p; X
16D	56; +4,+6,+8,+9,+10,+14,+17,+18,+2x21,+X	3, 15; X
16R	56; +4,+6,-7p,+7q,+8,+9,+10,+14,+17,+18,+2x21,+X	3, 15; X

Gains and losses of whole and segments of chromosomes that differ between matched diagnosis and relapse samples are shown in bold; part, partial.

Table S3. List of all regions of CNAs in 16 HD diagnosis and relapse samples

Pt	chr	start	end	length	mean	CN	first 20 genes (alphabetical order)
1D	4	2281	191261905	191259624	2,92	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7
1D	5	56553681	180722927	124169246	2,84	Trisomy	AACSL/ ABLIM3/ ACOT12/ ACSL6/ ACTBL2/ ADAM19/ ADAMTS19/ ADAMTS2/ ADAMTS6/ ADRA1B/ ADRB2/ AFAP1L1/ AFF4/ AGGF1/ AGXT2L2/ ALDH7A1/ ANKHD1/ ANKHD1-EIF4EBP3/ ANKRA2/ ANKRD31
1D	6	94661	26302046	26207385	3,18	Trisomy	ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218/ C6orf52/ C6orf62/ CAGE1/ CAP2/ CCDC90A/ CD83/ CDKAL1/ CDYL
1D	6	26357012	32580432	6223420	2,88	Trisomy	ABCF1/ ABT1/ AGER/ AGPAT1/ AIF1/ APOM/ ATF6B/ ATP6V1G2/ BAT1/ BAT2/ BAT3/ BAT4/ BAT5/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3
1D	6	32647506	93517380	60869874	2,88	Trisomy	AARS2/ ABCC10/ AKIRIN2/ ANKRD6/ ANKS1A/ APOBEC2/ B3GALT4/ B3GAT2/ BACH2/ BAG2/ BAI3/ BAK1/ BCKDHB/ BEND6/ BMP5/ BRD2/ BRPF3/ BTBD9/ BYSL/ C6orf1
1D	7	145857297	145885517	28220	1,36	Deletion	intron of CNTNAP2
1D	8	21254	146268960	146247706	2,62	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
1D	9	23351462	23369103	17641	0,77	Deletion	region ends 311002 bp before ELAVL2
1D	10	62759	67751120	67688361	2,88	Trisomy	A1CF/ ABI1/ ACBD5/ ACBD7/ ADARB2/ ADO/ AGAP4/ AGAP6/ AGAP7/ AGAP8/ AKR1C1/ AKR1C2/ AKR1C3/ AKR1C4/ AKR1CL1/ AKR1E2/ ALOX5/ ANK3/ ANKRD16/ ANKRD26
1D	10	67769650	135356695	67587045	2,87	Trisomy	ABCC2/ ABLIM1/ ACADSB/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADD3/ ADK/ ADRA2A/ ADRB1/ AFAP1L2/ AGAP11/ AGAP5/ AIFM2/ ALDH18A1/ ANKRD1/ ANKRD2
1D	14	18072124	21961276	3889152	2,89	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
1D	14	21989775	105306458	83316683	2,89	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSA1/ AK7
1D	17	526	21456827	21456301	1,15	Deletion	ABR/ ACADVL/ ACAP1/ ADORA2B/ AIPL1/ AKAP10/ ALDH3A1/ ALDH3A2/ ALKBH5/ ALOX12/ ALOX12B/ ALOX12P2/ ALOX15/ ALOX15B/ ALOXE3/ AMAC1L3/ ANKFY1/ ARHGEF15/ ARRB2/ ASGR1
1D	17	21456827	78643089	57186262	2,86	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ACACA/ ACBD4/ ACCN1/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1
1D	18	1543	76116030	76114487	2,91	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
1D	21	9758742	13329446	3570704	2,80	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE
1D	21	13329446	46921386	33591940	3,77	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
1R	4	2281	191261905	191259624	2,68	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7

1R	5	56292277	126168319	69876042	3,27	Tetrasomy	ACOT12/ ACTBL2/ ADAMTS6/ AGGF1/ ALDH7A1/ ANKRA2/ ANKRD31/ ANKRD32/ ANKRD34B/ AP3B1/ AP3S1/ APC/ ARRDC3/ ARSB/ ARSK/ ATG10/ ATG12/ ATP6AP1L/ BDP1/ BHMT
1R	6	94661	93404262	93309601	2,66	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ AKIRIN2/ ALDH5A1/ ANKRD6/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ B3GAT2/ BACH2
1R	6	93404262	103843095	10438833	1,56	Deletion	ASCC3/ C6orf167/ C6orf168/ CCNC/ COQ3/ EPHA7/ FBXL4/ FHL5/ FUT9/ GPR63/ GRIK2/ KIAA0776/ KLHL32/ MANEA/ MCHR2/ MIR2113/ NDUFAF4/ POU3F2/ PRDM13/ SFRS18
1R	6	103843095	103863692	20597	3,68	Tetrasomy	region starts 1218444 bp after GRIK2
1R	6	103863693	118972547	15108854	1,27	Deletion	AIM1/ AKD1/ AMD1/ ARMC2/ ATG5/ BEND3/ BET3L/ BRD7P3/ BVES/ C6orf182/ C6orf186/ C6orf203/ C6orf225/ CCDC162/ CD164/ CDC40/ CDK19/ COL10A1/ DCBLD1/ DDO
1R	7	145857297	145885517	28220	1,36	Deletion	intron of CNTNAP2
1R	8	21254	146268960	146247706	2,73	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
1R	9	23349559	23362204	12645	0,68	Deletion	region ends 317901 bp before ELAVL2
1R	10	62759	135356695	135293936	2,53	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
1R	14	18072124	21963443	3891319	2,81	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
1R	14	21989775	105400258	83410483	2,83	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNK2/ AHS1/ AK7
1R	17	526	21466202	21465676	1,21	Deletion	ABR/ ACADVL/ ACAP1/ ADORA2B/ AIPL1/ AKAP10/ ALDH3A1/ ALDH3A2/ ALKBH5/ ALOX12/ ALOX12B/ ALOX12P2/ ALOX15/ ALOX15B/ ALOXE3/ AMAC1L3/ ANKFY1/ ARHGEF15/ ARRB2/ ASGR1
1R	17	21466202	78643089	57176887	2,78	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ACACA/ ACBD4/ ACCN1/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1
1R	18	1543	76116030	76114487	2,77	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
1R	21	9758742	13329446	3570704	2,80	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE
1R	21	13329446	46921386	33591940	3,77	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
2D	4	2281	68918236	68915955	2,87	Trisomy	AASDH/ ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ APBB2/ ARAP2/ ARL9/ ATP10D/ ATP5I/ ATP8A1/ BEND4/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf14
2D	4	68974065	191261905	122287840	2,85	Trisomy	AADAT/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA/ AGPAT9
2D	6	94661	170892931	170798270	2,83	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1

2D	8	21254	146268960	146247706	2,82	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
2D	9	19410941	22277560	2866619	0,48	biDeletion	C9orf53/ CDKN2A/ CDKN2B/ CDKN2BAS/ IFNA1/ IFNA10/ IFNA13/ IFNA14/ IFNA16/ IFNA17/ IFNA2/ IFNA21/ IFNA4/ IFNA5/ IFNA6/ IFNA7/ IFNA8/ IFNB1/ IFNE/ IFNW1
2D	9	23351462	23369103	17641	0,58	biDeletion	region ends 311002 bp before ELAVL2
2D	9	77335725	77370040	34315	3,15	Trisomy	region ends 325340 bp before PCSK5
2D	14	18072124	21963443	3891319	2,75	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
2D	14	21989775	105406818	83417043	2,85	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSA1/ AK7
2D	14	106086665	106356483	269818	2,86	Trisomy	region starts 64090 bp after LOC100133469
2D	17	526	78643089	78642563	2,83	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
2D	18	1543	76116030	76114487	2,64	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
2D	21	9758742	46921386	37162644	2,86	Trisomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
2D	X	108477	154887041	154778564	2,91	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
2D	Y	2710438	57427648	54717210	2,65	Trisomy	AMELY/ BCORL2/ BPY2/ BPY2/ BPY2B/ BPY2B/ BPY2C/ CD24/ CDY1/ CDY1/ CDY1B/ CDY1B/ CDY2A/ CDY2A/ CDY2B/ CDY2B/ CSPG4P1/ CSPG4P1/ CSPG4P2
2R	6	94661	170892931	170798270	2,99	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
2R	8	12298577	39349649	27051072	3,00	Trisomy	ADAM28/ ADAM32/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BMP1/ BNIP3L/ BRF2/ C8orf41/ C8orf48/ C8orf58/ C8orf75/ C8orf79
2R	8	39349649	39506789	157140	4,21	Tetrasomy	ADAM3A/ region overlaps with 19.02% of ADAM5P
2R	8	39506789	146268960	106762171	3,00	Trisomy	ABRA/ ADAM18/ ADAM2/ ADCK5/ ADCY8/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ ANXA13/ AP3M2/ ARC/ ARFGEF1/ ARMC1/ ASAP1/ ASAP1IT1/ ASPH/ ATAD2/ ATP6V0D2
2R	9	19413099	22266390	2853291	0,21	biDeletion	C9orf53/ CDKN2A/ CDKN2B/ CDKN2BAS/ IFNA1/ IFNA10/ IFNA13/ IFNA14/ IFNA16/ IFNA17/ IFNA2/ IFNA21/ IFNA4/ IFNA5/ IFNA6/ IFNA7/ IFNA8/ IFNB1/ IFNE/ IFNW1
2R	9	23352460	23370082	17622	0,36	biDeletion	region ends 310023 bp before ELAVL2
2R	9	35251164	36965049	1713885	1,06	Deletion	C9orf100/ C9orf128/ CA9/ CCDC107/ CCIN/ CD72/ CLTA/ CREB3/ FAM166B/ GBA2/ GLIPR2/ GNE/ HINT2/ HRCT1/ LOC158376/ LOC158381/ LOC92973/ MELK/ MSMP/ NPR2
2R	9	77335725	77370040	34315	3,15	Trisomy	region ends 325340 bp before PCSK5
2R	14	18072124	21963443	3891319	2,83	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6

2R	14	21989775	105413599	83423824	2,97	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHTSA1/ AK7
2R	17	21474462	36676609	15202147	2,85	Trisomy	AATF/ ABHD15/ ACACA/ ACCN1/ ADAP2/ ALDOC/ AMAC1/ ANKRD13B/ AP2B1/ ARGFXP2/ ARHGAP23/ ARL5C/ ATAD5/ BLMH/ C17orf102/ C17orf108/ C17orf37/ C17orf42/ C17orf50/ C17orf63
2R	17	36681642	78643089	41961447	2,85	Trisomy	AANAT/ AARSD1/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2
2R	18	36514483	36520704	6221	0,40	biDeletion	region ends 793530 bp before KC6
2R	21	9758742	46921386	37162644	2,93	Trisomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
2R	X	108477	154887041	154778564	3,03	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
2R	Y	2710438	57427648	54717210	2,59	Trisomy	AMELY/ BCORL2/ BPY2/ BPY2/ BPY2B/ BPY2B/ BPY2C/ BPY2C/ CD24/ CDY1/ CDY1/ CDY1B/ CDY1B/ CDY2A/ CDY2A/ CDY2B/ CDY2B/ CSPG4P1/ CSPG4P1/ CSPG4P2
3D	4	88166164	88242666	76502	1,02	Deletion	contained within AFF1
3D	9	41994147	95152515	53158368	2,92	Trisomy	AGTPBP1/ ALDH1A1/ ANKRD19/ ANKRD20A1/ ANKRD20A2/ ANKRD20A2/ ANKRD20A3/ ANKRD20A3/ ANKRD20A4/ ANXA1/ APBA1/ AQP7P1/ AQP7P2/ AQP7P3/ ASPN/ AUH/ BICD2/ C9orf103/ C9orf129/ C9orf135
3D	11	11958863	11962638	3775	1,03	Deletion	intron of DKK3
3D	12	11640530	11692474	51944	0,99	Deletion	region ends 1581 bp before ETV6
3D	14	18072124	21959627	3887503	2,91	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1P1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
3D	14	22064640	105317595	83252955	2,92	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHTSA1/ AK7
3D	15	47204501	47283249	78748	0,99	Deletion	COPS2/ region overlaps with 42.59% of GALK2 / region overlaps with 60.93% of GALK2
3D	17	41591252	78643089	37051837	2,92	Trisomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACE/ ACOX1/ ACSF2/ ACTG1/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1/ ANKRD40/ APOH
3D	18	1543	19467488	19465945	2,87	Trisomy	ABHD3/ ADCYAP1/ AFG3L2/ ANKRD12/ ANKRD30B/ APCDD1/ ARHGAP28/ C18orf1/ C18orf18/ C18orf19/ C18orf2/ C18orf45/ C18orf56/ C18orf8/ CABLES1/ CEP192/ CEP76/ CETN1/ CHMP1B/ CIDEA
3D	18	25606292	26170001	563709	3,96	Tetrasomy	MIR302F
3D	18	27944964	30303029	2358065	2,73	Trisomy	ASXL3/ C18orf34/ FAM59A/ KLHL14/ MEP1B/ NOL4/ WBP11P1/ region overlaps with 0.87% of RNF138
3D	18	30303029	34355491	4052462	4,31	Tetrasomy	BRUNOL4/ C18orf10/ C18orf21/ DTNA/ ELP2/ FHOD3/ GALNT1/ INO80C/ KIAA1328/ MAPRE2/ MIR187/ MOCOS/ RPRD1A/ SLC39A6/ ZNF24/ ZNF271/ ZNF396/ ZNF397/ ZNF397OS/
3D	18	36513571	36522759	9188	0,63	biDeletion	region ends 791475 bp before KC6
3D	18	64895705	64906491	10786	0,52	biDeletion	region starts 22298 bp after CCDC102B
3D	20	10365430	10406099	40669	1,08	Deletion	contained within C20orf94

3D	21	9758742	13352761	3594019	2,60	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 0.57% of C21orf99
3D	21	13352762	46921386	33568624	3,83	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
3R	1	215935855	246839546	30903691	1,33	Deletion	ABCB10/ ACBD3/ ACTA1/ ACTN2/ ADSS/ AGT/ AHCTF1/ AIDA/ AKT3/ ARF1/ ARID4B/ ARV1/ AURKAPS1/ B3GALNT2/ BPNT1/ C1orf100/ C1orf101/ C1orf115/ C1orf124/ C1orf131
3R	4	88165475	88242666	77191	0,93	Deletion	contained within AFF1
3R	9	41994147	95152515	53158368	2,92	Trisomy	AGTPBP1/ ALDH1A1/ ANKRD19/ ANKRD20A1/ ANKRD20A2/ ANKRD20A2/ ANKRD20A3/ ANKRD20A3/ ANKRD20A4/ ANXA1/ APBA1/ AQP7P1/ AQP7P2/ AQP7P3/ ASPN/ AUH/ BICD2/ C9orf103/ C9orf129/ C9orf135
3R	11	11958863	11962638	3775	0,95	Deletion	intron of DKK3
3R	12	11640530	11692474	51944	0,95	Deletion	region ends 1581 bp before ETV6
3R	14	18072124	21959627	3887503	2,78	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
3R	14	22064640	105317595	83252955	2,75	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNK2/ AHSA1/ AK7
3R	15	47204501	47283249	78748	0,99	Deletion	COPS2/ region overlaps with 42.59% of GALK2 / region overlaps with 60.93% of GALK2
3R	17	41589928	78643089	37053161	2,75	Trisomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACE/ ACOX1/ ACSF2/ ACTG1/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1/ ANKRD40/ APOH
3R	18	1543	14148356	14146813	2,71	Trisomy	ADCYAP1/ AFG3L2/ ANKRD12/ APCDD1/ ARHGAP28/ C18orf1/ C18orf18/ C18orf19/ C18orf2/ C18orf56/ CEP192/ CEP76/ CETN1/ CHMP1B/ CIDEA/ CLUL1/ COLEC12/ DLGAP1/ EMILIN2/ ENOSF1
3R	18	25606292	26071289	464997	3,87	Tetrasomy	region ends 61585 bp before MIR302F
3R	18	30653936	34355491	3701555	3,56	Tetrasomy	BRUNOL4/ C18orf10/ C18orf21/ ELP2/ FHOD3/ GALNT1/ INO80C/ KIAA1328/ MAPRE2/ MIR187/ MOCOS/ RPRD1A/ SLC39A6/ ZNF24/ ZNF271/ ZNF396/ ZNF397/ ZNF397OS/ region overlaps with 0.25% of DTNA / region overlaps with 1.32% of DTNA
3R	18	36514483	36522759	8276	0,41	biDeletion	region ends 791475 bp before KC6
3R	18	64895705	64906491	10786	0,41	biDeletion	region starts 22298 bp after CCDC102B
3R	20	10364029	10406099	42070	1,04	Deletion	contained within C20orf94
3R	21	9758742	13352761	3594019	2,60	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 0.57% of C21orf99
3R	21	13352761	46921386	33568625	3,51	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
3R	X	1447837	1609657	161820	1,29	Deletion	ASMTL/ NCRNA00105/ SLC25A6/ region overlaps with 42.14% of P2RY8 / region overlaps with 8.50% of IL3RA
4D	3	3729860	4113159	383299	2,51	Trisomy	LRRN1
4D	4	2281	34446106	34443825	2,50	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ ATP5I/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf52/ C4orf6/ CC2D2A
4D	4	34446107	34512963	66856	3,40	Tetrasomy	region ends 1231054 bp before ARAP2

4D	4	34512964	70162237	35649273	2,69	Trisomy	AASDH/ APBB2/ ARAP2/ ARL9/ ATP10D/ ATP8A1/ BEND4/ C4orf14/ C4orf19/ C4orf34/ CENPC1/ CEP135/ CHIC2/ CHRNA9/ CLOCK/ CNGA1/ COMMD8/ CORIN/ COX7B2/ CWH43
4D	4	70263982	191261905	120997923	2,48	Trisomy	AADAT/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA/ AGPAT9
4D	6	94661	170892931	170798270	2,48	Trisomy	ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218/ C6orf52/ C6orf62/ CAGE1/ CAP2/ CCDC90A/ CD83/ CDKAL1/ CDYL
4D	12	44455485	44696457	240972	1,07	Deletion	SFRS2IP/ region overlaps with 55.03% of ARID2
4D	14	18072124	105227362	87155238	2,50	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
4D	17	526	78643089	78642563	2,51	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
4D	18	1543	76116030	76114487	2,49	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
4D	20	1515553	1518780	3227	3,41	Tetrasomy	intron of SIRPB1
4D	21	9758742	46921386	37162644	3,22	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
4D	22	14432528	20712337	6279809	2,46	Trisomy	AIFM3/ ARVCF/ ATP6V1E1/ BCL2L13/ BID/ C22orf25/ C22orf29/ C22orf39/ CCDC116/ CCT8L2/ CDC45L/ CECR1/ CECR2/ CECR4/ CECR5/ CECR6/ CECR7/ CLDN5/ CLTCL1/ COMT
4D	22	20851465	49581322	28729857	2,49	Trisomy	A4GALT/ ACO2/ ACR/ ADM2/ ADORA2A/ ADRBK2/ ADSL/ ALG12/ ANKRD54/ AP1B1/ APOBEC3A/ APOBEC3B/ APOBEC3C/ APOBEC3D/ APOBEC3F/ APOBEC3G/ APOBEC3H/ APOL1/ APOL2/ APOL3
4R	1	142736042	150822089	8086047	2,42	Trisomy	ACP6/ ADAMTSL4/ ANKRD34A/ ANKRD35/ ANP32E/ ANXA9/ APH1A/ ARNT/ BCL9/ BNIPL/ BOLA1/ C1orf152/ C1orf230/ C1orf51/ C1orf54/ C1orf56/ C2CD4D/ CA14/ CD160/ CDC42SE1
4R	1	150855451	210284419	59428968	2,42	Trisomy	ABL2/ ACBD6/ ADAM15/ ADAMTS4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ APC5/ APOA1BP/ APOA2/ APOBEC4/ AQP10/ ARHGAP30/ ARHGEF11
4R	2	178885386	242738130	63852744	2,42	Trisomy	AAMP/ ABCA12/ ABCB6/ ABI2/ ACADL/ ACCN4/ ACSL3/ ADAM23/ AGAP1/ AGFG1/ AGXT/ ALPI/ ALPP/ ALPLL2/ ALS2/ ALS2CR11/ ALS2CR12/ ALS2CR4/ ALS2CR8/ ANKAR
4R	3	3730633	4162541	431908	2,38	Trisomy	LRRN1
4R	4	2281	34446106	34443825	2,50	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ ATP5I/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf52/ C4orf6/ CC2D2A
4R	4	34446107	34512963	66856	3,40	Tetrasomy	region ends 1231054 bp before ARAP2
4R	4	34512964	70162237	35649273	2,70	Trisomy	AASDH/ APBB2/ ARAP2/ ARL9/ ATP10D/ ATP8A1/ BEND4/ C4orf14/ C4orf19/ C4orf34/ CENPC1/ CEP135/ CHIC2/ CHRNA9/ CLOCK/ CNGA1/ COMMD8/ CORIN/ COX7B2
4R	4	70263982	191261905	120997923	2,48	Trisomy	AADAT/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA/ AGPAT9

4R	6	27775594	170892931	143117337	2,48	Trisomy	AARS2/ ABCC10/ ABCF1/ ACAT2/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH8A1/ AMD1/ ANKRD6/ ANKS1A
4R	12	44455485	44699675	244190	1,09	Deletion	SFRS2IP/ region overlaps with 54.30% of ARID2
4R	13	27656094	27737994	81900	2,66	Trisomy	contained within PAN3
4R	14	18072124	52242914	34170790	2,45	Trisomy	ABHD12B/ ABHD4/ ACIN1/ ADCY4/ AKAP6/ ANG/ AP1G2/ AP4S1/ APEX1/ ARF6/ ARHGAP5/ ATL1/ ATP5S/ BAZ1A/ BCL2L2/ BRMS1L/ C14orf104/ C14orf106/ C14orf119/ C14orf126
4R	17	526	78643089	78642563	2,42	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
4R	18	1543	76116030	76114487	2,42	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
4R	20	1515553	1518780	3227	3,41	Tetrasomy	intron of SIRPB1
4R	21	9758742	46921386	37162644	3,15	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
4R	22	14432528	20712337	6279809	2,46	Trisomy	AIFM3/ ARVCF/ ATP6V1E1/ BCL2L13/ BID/ C22orf25/ C22orf29/ C22orf39/ CCDC116/ CCT8L2/ CDC45L/ CECR1/ CECR2/ CECR4/ CECR5/ CECR6/ CECR7/ CLDN5/ CLTCL1/ COMT
4R	22	20851465	49581322	28729857	2,47	Trisomy	A4GALT/ ACO2/ ACR/ ADM2/ ADORA2A/ ADRBK2/ ADSL/ ALG12/ ANKRD54/ AP1B1/ APOBEC3A/ APOBEC3B/ APOBEC3C/ APOBEC3D/ APOBEC3F/ APOBEC3G/ APOBEC3H/ APOL1/ APOL2/ APOL3
5D	6	94803	170804144	170709341	2,82	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
5D	9	40463	140185942	140145479	2,67	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACER2/ ACO1/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL1/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AK3/ AKAP2/ AKNA/ ALAD/ ALDH1A1
5D	10	67340	135355061	135287721	2,81	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
5D	14	18085723	21582175	3496452	3,53	Tetrasomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
5D	14	21582175	21961276	379101	4,98	Tetrasomy	region ends 142371 bp before DAD1
5D	14	22012224	105406903	83394679	3,58	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNK2/ AHS1/ AK7
5D	18	33309	76115555	76082246	2,81	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
5D	21	9758742	46942557	37183815	3,62	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
5D	X	142664	100209242	100066578	2,79	Trisomy	ABCB7/ ACE2/ ACOT9/ ACRC/ AKAP4/ ALAS2/ AMELX/ AP1S2/ APEX2/ APOO/ APOOL/ AR/ ARAF/ ARHGAP6/ ARHGFE9/ ARL13A/ ARR3/ ARSD/ ARSE/ ARSF

5D	X	101231888	154582820	53350932	2,82	Trisomy	ABCD1/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ ALG13/ AMMECR1/ AMOT/ ANKRD58/ APLN/ ARD1A/ ARHGAP4/ ARHGFE6/ ARMCX5/ ASFMR1/ ATG4A/ ATP11C/ ATP1B4
5R	1	143660269	247188467	103528198	2,51	Trisomy	ABCB10/ ABL2/ ACBD3/ ACBD6/ ACP6/ ACTA1/ ACTN2/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ ADSS/ AGT/ AHCTF1/ AIDA/ AIM2/ AKT3
5R	6	94803	170804144	170709341	2,53	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
5R	9	40463	140185942	140145479	2,53	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACER2/ ACO1/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL1/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AK3/ AKAP2/ AKNA/ ALAD/ ALDH1A1
5R	10	67340	135355061	135287721	2,56	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
5R	14	18085723	21961276	3875553	2,62	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
5R	14	21582175	21961276	379101	4,98	Tetrasomy	region ends 142371 bp before DAD1
5R	14	22012224	33257545	11245321	2,62	Trisomy	ABHD4/ ACIN1/ ADCY4/ AKAP6/ AP1G2/ AP4S1/ ARHGAP5/ BCL2L2/ C14orf119/ C14orf126/ C14orf128/ C14orf165/ C14orf167/ C14orf21/ C14orf23/ C14orf93/ CBLN3/ CDH24/ CEBPE/ CHMP4A
5R	14	33257545	105406903	72149358	2,57	Trisomy	ABCD4/ ABHD12B/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADSSL1/ AHNK2/ AHS1/ AK7/ AKAP5/ AKT1/ ALDH6A1
5R	18	33309	76115555	76082246	2,52	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
5R	20	1514456	1546711	32255	3,40	Tetrasomy	intron of SIRPB1/ region overlaps with 64.25% of SIRPB1
5R	21	9758742	46942557	37183815	3,06	Trisomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
5R	X	142664	100209242	100066578	2,48	Trisomy	ABCB7/ ACE2/ ACOT9/ ACRC/ AKAP4/ ALAS2/ AMELX/ AP1S2/ APEX2/ APOO/ APOOL/ AR/ ARAF/ ARHGAP6/ ARHGFE9/ ARL13A/ ARR3/ ARSD/ ARSE/ ARSF
5R	X	101231888	154582820	53350932	2,41	Trisomy	ABCD1/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ ALG13/ AMMECR1/ AMOT/ ANKRD58/ APLN/ ARD1A/ ARHGAP4/ ARHGFE6/ ARMCX5/ ASFMR1/ ATG4A/ ATP11C/ ATP1B4
6D	2	113879037	113930098	51061	0,49	biDeletion	region overlaps with 35.96% of CBWD2
6D	4	58866	162099905	162041039	2,89	Trisomy	AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ADAD1/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ ADRA2C/ AFAP1/ AFF1
6D	4	162104042	162249209	145167	2,91	Trisomy	region ends 275290 bp before FSTL5
6D	4	162319797	191261905	28942108	2,83	Trisomy	AADAT/ ACSL1/ ADAM29/ AGA/ ANKRD37/ ANP32C/ ANXA10/ ASB5/ C4orf27/ C4orf38/ C4orf39/ C4orf41/ C4orf43/ C4orf47/ CASP3/ CBR4/ CCDC110/ CCDC111/ CDKN2AIP/ CLCN3
6D	6	94661	26251349	26156688	2,44	Trisomy	ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218/ C6orf52/ C6orf62/ CAGE1/ CAP2/ CCDC90A/ CD83/ CDKAL1/ CDYL

6D	6	26251350	26339549	88199	1,12	Deletion	HIST1H1E/ HIST1H2AD/ HIST1H2AE/ HIST1H2BD/ HIST1H2BE/ HIST1H2BF/ HIST1H2BG/ HIST1H3D/ HIST1H3E/ HIST1H4D/ HIST1H4E
6D	6	26339550	28002125	1662575	2,86	Trisomy	ABT1/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3/ C6orf41/ FKSG83/ GUSBL1/ HCG11/ HIST1H1B/ HIST1H1D/ HIST1H2AG/ HIST1H2AH/ HIST1H2AI/ HIST1H2AJ/ HIST1H2AK/ HIST1H2AL
6D	7	71213869	71233330	19461	1,10	Deletion	intron of CALN1
6D	8	21254	146268960	146247706	2,87	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
6D	9	36587	90416775	90380188	2,69	Trisomy	ACER2/ ACO1/ ADAMTSL1/ AGTPBP1/ AK3/ ALDH1A1/ ALDH1B1/ ANKRD18A/ ANKRD20A1/ ANKRD20A2/ ANKRD20A2/ ANKRD20A3/ ANKRD20A3/ ANKRD20A4/ ANXA1/ ANXA2P2/ APBA1/ APTX/ AQP3/ AQP7
6D	9	90443655	140211216	49767561	2,47	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL2/ AGPAT2/ AIF1L/ AK1/ AKAP2/ AKNA/ ALAD/ ALDOB/ ALG2/ AMBP/ ANAPC2/ ANGPTL2/ ANKRD19
6D	10	63345767	63462585	116818	1,27	Deletion	contained within ARID5B
6D	12	11657913	11694365	36452	1,02	Deletion	region overlaps with 0.85% of ETV6
6D	14	18072124	21961276	3889152	2,80	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
6D	14	22071213	67646239	45575026	2,87	Trisomy	ABHD12B/ ABHD4/ ACIN1/ ACTR10/ ADCY4/ AKAP5/ AKAP6/ AP1G2/ AP4S1/ ARF6/ ARG2/ ARHGAP5/ ARID4A/ ATL1/ ATP5S/ ATP6V1D/ BAZ1A/ BCL2L2/ BMP4/ BRMS1L
6D	14	67791396	105211178	37419782	2,82	Trisomy	ABCD4/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADSSL1/ AHNK2/ AHS1A/ AK7/ AKT1/ ALDH6A1/ ALKBH1/ AMN/ ANGEL1
6D	14	105613912	106354298	740386	2,82	Trisomy	LOC100133469
6D	17	526	78643089	78642563	2,75	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
6D	18	1543	76116030	76114487	2,88	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
6D	21	9758742	13376955	3618213	2,69	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 1.23% of C21orf99
6D	21	13376955	46921386	33544431	3,74	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
6D	X	108477	154887041	154778564	2,92	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
6R	1	25475486	25505128	29642	3,36	Tetrasomy	contained within RHD
6R	1	72538482	72581989	43507	3,13	Trisomy	region starts 17616 bp after NEGR1
6R	1	246820018	246863790	43772	3,52	Tetrasomy	OR2T10/ OR2T11
6R	2	113879037	113930098	51061	0,44	biDeletion	region overlaps with 35.96% of CBWD2
6R	4	33443	162093382	162059939	2,88	Trisomy	AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ADAD1/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ ADRA2C/ AFAP1/ AFF1

6R	4	162100039	162249209	149170	2,76	Trisomy	region ends 275290 bp before FSTL5
6R	4	162319797	191261905	28942108	2,83	Trisomy	AADAT/ ACSL1/ ADAM29/ AGA/ ANKRD37/ ANP32C/ ANXA10/ ASB5/ C4orf27/ C4orf38/ C4orf39/ C4orf41/ C4orf43/ C4orf47/ CASP3/ CBR4/ CCDC110/ CCDC111/ CDKN2AIP/ CLCN3
6R	5	57359593	57368213	8620	3,89	Tetrasomy	region ends 417354 bp before PLK2
6R	6	94661	26230190	26135529	2,91	Trisomy	ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218/ C6orf52/ C6orf62/ CAGE1/ CAP2/ CCDC90A/ CD83/ CDKAL1/ CDYL
6R	6	26251350	26339549	88199	0,33	biDeletion	HIST1H1E/ HIST1H2AD/ HIST1H2AE/ HIST1H2BD/ HIST1H2BE/ HIST1H2BF/ HIST1H2BG/ HIST1H3D/ HIST1H3E/ HIST1H4D/ HIST1H4E
6R	6	26339550	28002125	1662575	2,86	Trisomy	ABT1/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3/ C6orf41/ FKSG83/ GUSBL1/ HCG11/ HIST1H1B/ HIST1H1D/ HIST1H2AG/ HIST1H2AH/ HIST1H2AI/ HIST1H2AJ/ HIST1H2AK/ HIST1H2AL
6R	6	28002125	28043042	40917	1,14	Deletion	OR2B6
6R	6	77496677	77509400	12723	3,51	Tetrasomy	region starts 657621 bp after IMPG1
6R	7	71213869	71233330	19461	1,10	Deletion	intron of CALN1
6R	8	21254	146268960	146247706	2,85	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
6R	9	36587	46221512	46184925	1,58	Deletion	ACER2/ ACO1/ ADAMTSL1/ AK3/ ALDH1B1/ ANKRD18A/ ANKRD20A2/ ANKRD20A2/ ANKRD20A3/ ANKRD20A3/ ANXA2P2/ APTX/ AQP3/ AQP7/ AQP7P3/ ARID3C/ B4GALT1/ BAG1/ BNC2/ C9orf100
6R	9	46221512	85691836	39470324	2,52	Trisomy	ALDH1A1/ ANKRD20A1/ ANKRD20A3/ ANKRD20A4/ ANXA1/ APBA1/ AQP7P1/ AQP7P2/ C9orf103/ C9orf135/ C9orf40/ C9orf41/ C9orf57/ C9orf71/ C9orf85/ C9orf95/ CBWD3/ CBWD3/ CBWD5/ CBWD6
6R	9	85706736	90416775	4710039	2,53	Trisomy	AGTPBP1/ C9orf153/ C9orf170/ C9orf64/ C9orf79/ CDK20/ CTSL1/ CTSL3/ DAPK1/ FAM75C1/ GAS1/ GOLM1/ HNRNPK/ ISCA1/ LOC389765/ LOC440173/ LOC645961/ MAK10/ MIR7-1/ NTRK2
6R	9	90443655	140211216	49767561	2,47	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACTL7A/ ACTL7B/ ADAMTSL13/ ADAMTSL2/ AGPAT2/ AIF1L/ AK1/ AKAP2/ AKNA/ ALAD/ ALDOB/ ALG2/ AMBP/ ANAPC2/ ANGPTL2/ ANKRD19
6R	10	63345767	63462585	116818	0,69	Deletion	contained within ARID5B
6R	12	11636458	11692474	56016	1,07	Deletion	region ends 1581 bp before ETV6
6R	13	27596922	27713544	116622	1,04	Deletion	LOC100288730/ region overlaps with 88.23% of PAN3
6R	14	18072124	21939309	3867185	2,92	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
6R	14	22071213	67646239	45575026	2,86	Trisomy	ABHD12B/ ABHD4/ ACIN1/ ACTR10/ ADCY4/ AKAP5/ AKAP6/ AP1G2/ AP4S1/ ARF6/ ARG2/ ARHGAP5/ ARID4A/ ATL1/ ATP5S/ ATP6V1D/ BAZ1A/ BCL2L2/ BMP4/ BRMS1L
6R	14	67791396	105227362	37435966	2,91	Trisomy	ABCD4/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADSSL1/ AHNAK2/ AHSA1/ AK7/ AKT1/ ALDH6A1/ ALKBH1/ AMN/ ANGEL1
6R	14	105613912	106354298	740386	2,61	Trisomy	LOC100133469
6R	16	3720823	3751535	30712	1,05	Deletion	contained within CREBBP
6R	17	526	78643089	78642563	2,86	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY

6R	18	1543	51156026	51154483	2,91	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ AFG3L2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ B4GALT6/ BRUNOL4/ C18orf1/ C18orf10/ C18orf16/ C18orf18/ C18orf19/ C18orf2
6R	18	51208988	76116030	24907042	2,91	Trisomy	ADNP2/ ALPK2/ ATP8B1/ ATP9B/ BCL2/ C18orf20/ C18orf22/ C18orf55/ C18orf62/ CBLN2/ CCBE1/ CCDC102B/ CD226/ CDH19/ CDH20/ CDH7/ CNDP1/ CNDP2/ CPLX4/ CTDP1
6R	19	40547586	40556136	8550	3,13	Tetrasomy	region starts 4358 bp after FFAR3
6R	21	9758742	13376955	3618213	2,56	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 1.23% of C21orf99
6R	21	13376955	46921386	33544431	3,79	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
6R	X	108477	154887041	154778564	2,88	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
7D	4	2281	34473641	34471360	2,49	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ ATP5I/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf52/ C4orf6/ CC2D2A
7D	4	34481663	70196203	35714540	2,44	Trisomy	AASDH/ APBB2/ ARAP2/ ARL9/ ATP10D/ ATP8A1/ BEND4/ C4orf14/ C4orf19/ C4orf34/ CENPC1/ CEP135/ CHIC2/ CHRNA9/ CLOCK/ CNGA1/ COMMD8/ CORIN/ COX7B2/ CWH43
7D	4	70266988	173659006	103392018	2,45	Trisomy	AADAT/ ABCE1/ ABCG2/ ACCN5/ ADAD1/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGPAT9/ AGXT2L1/ AIMP1/ ALB
7D	4	173664981	191261905	17596924	2,43	Trisomy	ACSL1/ ADAM29/ AGA/ ANKRD37/ ASB5/ C4orf38/ C4orf41/ C4orf47/ CASP3/ CCDC110/ CCDC111/ CDKN2AIP/ CLDN22/ CYP4V2/ DCTD/ DUX4/ ENPP6/ F11/ FAM149A/ FAM92A3
7D	8	21254	39352288	39331034	2,48	Trisomy	ADAM28/ ADAM32/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BLK/ BMP1/ BNIP3L/ BRF2
7D	8	39503569	146268960	106765391	2,49	Trisomy	ABRA/ ADAM18/ ADAM2/ ADCK5/ ADCY8/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ ANXA13/ AP3M2/ ARC/ ARFGEF1/ ARMC1/ ASAP1/ ASAP1IT1/ ASPH/ ATAD2/ ATP6V0D2
7D	10	62759	135356695	135293936	2,52	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
7D	11	36554844	36593313	38469	1,30	Deletion	RAG2/ region overlaps with 53.67% of C11orf74 / region overlaps with 7.91% of RAG1
7D	14	18072124	106356483	88284359	2,44	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADAM6/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSA1
7D	20	9305	1509289	1499984	1,25	Deletion	ANGPT4/ C20orf202/ C20orf46/ C20orf54/ C20orf96/ CSNK2A1/ DEFB125/ DEFB126/ DEFB127/ DEFB128/ DEFB129/ DEFB132/ FAM110A/ FKBP1A/ NRSN2/ NSFL1C/ PSMF1/ RAD21L1/ RBCK1/ RSPO4
7D	20	1546026	62426598	60880572	1,25	Deletion	ABHD12/ ACOT8/ ACSS1/ ACSS2/ ACTR5/ ADA/ ADAM33/ ADIG/ ADNP/ ADRA1D/ ADRM1/ AHCY/ ANKRD5/ APCDD1L/ ARFGAP1/ ARFGEF2/ ARFRP1/ ASIP/ ASXL1/ ATP5E
7D	21	9758742	13352761	3594019	2,49	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 0.57% of C21orf99
7D	21	13375178	46921386	33546208	3,28	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128

7D	X	108477	154887041	154778564	2,65	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
7R	8	21254	39352288	39331034	2,48	Trisomy	ADAM28/ ADAM32/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BLK/ BMP1/ BNIP3L/ BRF2
7R	8	39503569	146268960	106765391	2,49	Trisomy	ABRA/ ADAM18/ ADAM2/ ADCK5/ ADCY8/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ ANXA13/ AP3M2/ ARC/ ARFGFE1/ ARMC1/ ASAP1/ ASAP1IT1/ ASPH/ ATAD2/ ATP6VD2
7R	9	36587	21880144	21843557	1,08	Deletion	ACER2/ ADAMTSL1/ AK3/ BNC2/ C9orf123/ C9orf150/ C9orf46/ C9orf66/ C9orf68/ C9orf70/ C9orf93/ CBWD1/ CD274/ CDC37L1/ CER1/ CNTLN/ DENND4C/ DMRT1/ DMRT2/ DMRT3
7R	9	21880145	22141940	261795	0,33	biDeletion	C9orf53/ CDKN2A/ CDKN2B/ CDKN2BAS
7R	9	22141941	39364238	17222297	1,03	Deletion	ACO1/ ALDH1B1/ ANKRD18A/ ANXA2P2/ APTX/ AQP3/ AQP7/ ARID3C/ B4GALT1/ BAG1/ C9orf100/ C9orf11/ C9orf122/ C9orf128/ C9orf131/ C9orf144/ C9orf144B/ C9orf23/ C9orf24/ C9orf25
7R	9	70136749	140211216	70074467	2,60	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AKAP2/ AKNA/ ALAD/ ALDH1A1/ ALDOB/ ALG2/ AMBP/ ANAPC2
7R	10	62759	135356695	135293936	2,63	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
7R	11	36556936	36591347	34411	1,05	Deletion	RAG2/ region overlaps with 2.77% of RAG1 / region overlaps with 54.28% of C11orf74
7R	14	18072124	106356483	88284359	2,44	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADAM6/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSA1
7R	16	1	28183744	28183743	2,70	UPIT	A2BP1/ ABAT/ ABCA17P/ ABCA3/ ABCC1/ ABCC6/ ABCC6P1/ ABCC6P2/ ACSM1/ ACSM2A/ ACSM2B/ ACSM3/ ACSM5/ ADCY9/ ALG1/ AMDHD2/ ANKS3/ ANKS4B/ AQP8/ ARHGAP17
7R	16	28183745	88815037	60631292	2,58	Trisomy	AARS/ ABCC11/ ABCC12/ ACD/ ACSF3/ ADAD2/ ADAMTS18/ ADAT1/ ADCY7/ AFG3L1/ AGRP/ AHSP/ AKTIP/ ALDOA/ AMFR/ ANKRD11/ ANKRD26P1/ AP1G1/ APOB48R/ APRT
7R	20	1509289	1546026	36737	2,96	Trisomy	intron of SIRPB1/ region overlaps with 54.55% of SIRPB1
7R	21	9758742	13352761	3594019	2,49	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 0.57% of C21orf99
7R	21	13352761	46921386	33568625	3,41	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
7R	X	108477	154887041	154778564	2,65	Trisomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
8D	1	144970736	217457824	72487088	2,81	UPIT	ABL2/ ACBD6/ ACP6/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGEL2/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ ANP32E/ ANXA9/ APCS/ APH1A
8D	2	184697832	185172317	474485	1,33	Deletion	region overlaps with 0.21% of ZNF804A
8D	4	506	191250146	191249640	2,69	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7
8D	6	94803	170804144	170709341	2,67	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1

8D	7	52911	35307355	35254444	1,57	Deletion	AAA1/ ABCB5/ ACTB/ ADAP1/ ADCYAP1R1/ AGR2/ AGR3/ AHR/ AIMP2/ AMZ1/ ANKMY2/ AQP1/ ARL4A/ AVL9/ BBS9/ BMPER/ BZW2/ C1GALT1/ C7orf16/ C7orf20
8D	7	35307355	57844174	22536819	1,57	Deletion	ABCA13/ ADCY1/ AEBP1/ AMPH/ ANLN/ AOAH/ BLVRA/ C7orf10/ C7orf11/ C7orf25/ C7orf36/ C7orf40/ C7orf44/ C7orf57/ C7orf65/ C7orf69/ C7orf72/ CAMK2B/ CCM2/ CCT6A
8D	7	57844174	158811019	100966845	2,66	Trisomy	AASS/ ABCB1/ ABCB4/ ABCB8/ ABCF2/ ABHD11/ ABP1/ ACCN3/ ACHE/ ACN9/ ACTL6B/ ACTR3B/ ACTR3C/ ADAM22/ ADCK2/ AGAP3/ AGBL3/ AGFG2/ AGK/ AHCYL2
8D	9	36360881	36916361	555480	2,69	Trisomy	MELK/ region overlaps with 15.81% of PAX5 / region overlaps with 5.30% of RNF38 / region overlaps with 5.41% of RNF38 / region overlaps with 5.46% of RNF38
8D	10	67340	135355061	135287721	2,71	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
8D	11	188950	79991856	79802906	2,65	Trisomy	ABCC8/ ABTB2/ ACCS/ ACCSL/ ACER3/ ACP2/ ACTN3/ ACY3/ ADM/ ADRBK1/ AGBL2/ AHNAK/ AIP/ ALDH3B1/ ALDH3B2/ ALG8/ ALKBH3/ ALX4/ AMBRA1/ AMPD3
8D	11	90659776	95095746	4435970	2,74	Trisomy	AMOTL1/ ANKRD49/ C11orf54/ C11orf75/ C11orf90/ CCDC67/ CWC15/ ENDOD1/ FAT3/ FOLR4/ FUT4/ GPR83/ HEPHL1/ KDM4D/ KDM4DL/ KIAA1731/ MED17/ MIR1304/ MRE11A/ MTNR1B
8D	11	117039454	134449983	17410529	2,69	Trisomy	ABCG4/ ACAD8/ ACRV1/ ADAMTS15/ ADAMTS8/ AMICA1/ APLP2/ ARCN1/ ARHGEF12/ ASAM/ ATP5L/ B3GAT1/ BARX2/ BCL9L/ BLID/ BSX/ C11orf45/ C11orf60/ C11orf61/ C11orf63
8D	12	11778400	11833195	54795	1,27	Deletion	contained within ETV6
8D	14	18085723	21961276	3875553	3,29	Tetrasomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
8D	14	22040131	69076554	47036423	3,32	Tetrasomy	ABHD12B/ ABHD4/ ACIN1/ ACTN1/ ACTR10/ ADCY4/ AKAP5/ AKAP6/ AP1G2/ AP4S1/ ARF6/ ARG2/ ARHGAP5/ ARID4A/ ATL1/ ATP5S/ ATP6V1D/ BAZ1A/ BCL2L2/ BMP4
8D	14	69091696	105406903	36315207	3,34	Tetrasomy	ABCD4/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADSSL1/ AHNAK2/ AHS1/ AK7/ AKT1/ ALDH6A1/ ALKBH1/ AMN/ ANGEL1/ ANKRD9
8D	18	33309	76115555	76082246	2,70	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
8D	21	9758742	46942557	37183815	3,31	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
8D	22	20846031	20915779	69748	1,29	Deletion	region ends 13421 bp before VPREB1
8D	X	142664	154582820	154440156	3,48	Tetrasomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
8R	1	144970736	217457824	72487088	2,74	UPIT	ABL2/ ACBD6/ ACP6/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGEL2/ ANGPL1/ ANKRD36BL1/ ANKRD45/ ANP32E/ ANXA9/ APCS/ APH1A
8R	2	184697832	185172317	474485	1,33	Deletion	region overlaps with 0.21% of ZNF804A
8R	4	506	191250146	191249640	2,63	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7

8R	5	59233251	128061178	68827927	2,60	Trisomy	ACOT12/ ADAMTS6/ AGGF1/ ALDH7A1/ ANKRA2/ ANKRD31/ ANKRD32/ ANKRD34B/ AP3B1/ AP3S1/ APC/ ARRDC3/ ARSB/ ARSK/ ATG10/ ATG12/ ATP6AP1L/ BDP1/ BHMT/ BHMT2
8R	6	94803	170804144	170709341	2,60	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
8R	7	52911	57844174	57791263	1,34	Deletion	AAA1/ ABCA13/ ABCB5/ ACTB/ ADAP1/ ADCY1/ ADCYAP1R1/ AEBP1/ AGR2/ AGR3/ AHR/ AIMP2/ AMPH/ AMZ1/ ANKMY2/ ANLN/ AOAH/ AQP1/ ARL4A/ AVL9
8R	7	57844174	158811019	100966845	2,59	Trisomy	AASS/ ABCB1/ ABCB4/ ABCB8/ ABCF2/ ABHD11/ ABP1/ ACCN3/ ACHE/ ACN9/ ACTL6B/ ACTR3B/ ACTR3C/ ADAM22/ ADCK2/ AGAP3/ AGBL3/ AGFG2/ AGK/ AHCYL2
8R	8	39472473	39510259	37786	3,72	Tetrasomy	region overlaps with 71.87% of ADAM3A
8R	9	36360881	36916361	555480	2,69	Trisomy	MELK/ region overlaps with 15.81% of PAX5 / region overlaps with 5.30% of RNF38 / region overlaps with 5.41% of RNF38 / region overlaps with 5.46% of RNF38
8R	10	67340	135355061	135287721	2,64	Trisomy	A1CF/ ABCC2/ AB1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
8R	11	188950	79991856	79802906	2,65	Trisomy	ABCC8/ ABTB2/ ACCS/ ACCSL/ ACER3/ ACP2/ ACTN3/ ACY3/ ADM/ ADRBK1/ AGBL2/ AHNAK/ AIP/ ALDH3B1/ ALDH3B2/ ALG8/ ALKBH3/ ALX4/ AMBRA1/ AMPD3
8R	11	90659776	95095746	4435970	2,74	Trisomy	AMOTL1/ ANKRD49/ C11orf54/ C11orf75/ C11orf90/ CCDC67/ CWC15/ ENDOD1/ FAT3/ FOLR4/ FUT4/ GPR83/ HEPHL1/ KDM4D/ KDM4DL/ KIAA1731/ MED17/ MIR1304/ MRE11A/ MTNR1B
8R	11	117039454	134449983	17410529	2,69	Trisomy	ABCG4/ ACAD8/ ACRV1/ ADAMTS15/ ADAMTS8/ AMICA1/ APLP2/ ARCN1/ ARHGFE12/ ASAM/ ATP5L/ B3GAT1/ BARX2/ BCL9L/ BLID/ BSX/ C11orf45/ C11orf60/ C11orf61/ C11orf63
8R	12	11778400	11833195	54795	1,27	Deletion	contained within ETV6
8R	14	18085723	21961276	3875553	3,19	Tetrasomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
8R	14	22045554	105406903	83361349	3,17	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
8R	18	33309	76115555	76082246	2,65	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
8R	21	9758742	46942557	37183815	3,31	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
8R	22	20888031	20930991	42960	1,06	Deletion	VPREB1
8R	X	142664	154582820	154440156	3,29	Tetrasomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
9D	1	143660269	206896849	63236580	2,42	Trisomy	ABL2/ ACBD6/ ACP6/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGPL1/ ANKRD34A/ ANKRD35/ ANKRD36BL1/ ANKRD45/ ANP32E/ ANXA9/ APCS
9D	1	244730175	247249719	2519544	2,53	Trisomy	AHCTF1/ C1orf150/ C1orf229/ CNST/ LOC148824/ LOC149134/ LOC646627/ NLRP3/ OR11L1/ OR13G1/ OR14A16/ OR14C36/ OR14I1/ OR1C1/ OR2AK2/ OR2B11/ OR2C3/ OR2G2/ OR2G3/ OR2G6

9D	4	506	9822874	9822368	2,85	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ATP5/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf6/ CCDC96/ CNO/ CPLX1/ CPZ/ CRIPAK/ CRMP1
9D	4	9843736	191250146	181406410	2,68	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA
9D	5	72568	95826411	95753843	2,63	Trisomy	ACOT12/ ACTBL2/ ADAMTS12/ ADAMTS16/ ADAMTS6/ ADCY2/ AGGF1/ AGXT2/ AHRR/ AMACR/ ANKH/ ANKRA2/ ANKRD31/ ANKRD32/ ANKRD33B/ ANKRD34B/ ANKRD55/ AP3B1/ ARL15/ ARRDC3
9D	5	150183011	150212275	29264	0,85	Deletion	IRGM
9D	6	94803	170804144	170709341	2,64	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
9D	8	21193	146268972	146247779	2,64	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
9D	10	67340	135355061	135287721	3,21	Tetrasomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
9D	11	188950	5739858	5550908	2,61	Trisomy	ANO9/ AP2A2/ ART1/ ART5/ ASCL2/ ATHL1/ B4GALNT4/ BET1L/ BRSK2/ C11orf21/ C11orf35/ C11orf36/ C11orf40/ CARS/ CD151/ CD81/ CDKN1C/ CEND1/ CHID1/ CHRNA10
9D	11	5757883	134449983	128692100	2,62	Trisomy	AASDHPT/ ABCC8/ ABCG4/ ABTB2/ ACAD8/ ACAT1/ ACCS/ ACCSL/ ACER3/ ACP2/ ACRV1/ ACTN3/ ACY3/ ADAMTS15/ ADAMTS8/ ADM/ ADRBK1/ AGBL2/ AHNAK/ AIP
9D	12	20703	132287719	132267016	2,63	Trisomy	A2M/ A2ML1/ AAAS/ AACS/ ABCB9/ ABCC9/ ABCD2/ ACACB/ ACAD10/ ACADS/ ACCN2/ ACRBP/ ACSM4/ ACSS3/ ACTR8/ ACVR1B/ ACVRL1/ ADAMTS20/ ADCY6/ ADIPOR2
9D	14	18085723	21852647	3766924	2,62	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1P1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
9D	14	22053238	105406903	83353665	2,64	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
9D	17	38474392	78638431	40164039	2,64	Trisomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1
9D	18	33309	76115555	76082246	3,30	Tetrasomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
9D	21	9758742	46942557	37183815	3,74	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
9R	1	143660269	150835514	7175245	3,42	Tetrasomy	ACP6/ ADAMTSL4/ ANKRD34A/ ANKRD35/ ANP32E/ ANXA9/ APH1A/ ARNT/ BCL9/ BNIPL/ BOLA1/ C1orf230/ C1orf51/ C1orf54/ C1orf56/ C2CD4D/ CA14/ CD160/ CDC42SE1/ CGN
9R	1	150848459	206896849	56048390	3,42	Tetrasomy	ABL2/ ACBD6/ ADAM15/ ADAMTS4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ APC5/ APOA1BP/ APOA2/ APOBEC4/ AQP10/ ARHGAP30/ ARHGEF11
9R	1	206896850	244730175	37833325	3,12	Trisomy	ABCB10/ ACBD3/ ACTA1/ ACTN2/ ADSS/ AGT/ AIDA/ AKT3/ ANGEL2/ ARF1/ ARID4B/ ARV1/ ATF3/ AURKAPS1/ B3GALNT2/ BATF3/ BPNT1/ C1orf100/ C1orf101/ C1orf107

9R	1	244730175	247249719	2519544	3,42	Tetrasomy	AHCTF1/ C1orf150/ C1orf229/ CNST/ LOC148824/ LOC149134/ LOC646627/ NLRP3/ OR11L1/ OR13G1/ OR14A16/ OR14C36/ OR14I1/ OR1C1/ OR2AK2/ OR2B11/ OR2C3/ OR2G2/ OR2G3/ OR2G6
9R	4	506	9822874	9822368	2,63	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ATP5I/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf6/ CCDC96/ CNO/ CPLX1/ CPZ/ CRIPAK/ CRMP1
9R	4	9843736	191250146	181406410	2,68	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA
9R	5	72568	95824323	95751755	3,38	Tetrasomy	ACOT12/ ACTBL2/ ADAMTS12/ ADAMTS16/ ADAMTS6/ ADCY2/ AGGF1/ AGXT2/ AHRR/ AMACR/ ANKH/ ANKRA2/ ANKRD31/ ANKRD32/ ANKRD33B/ ANKRD34B/ ANKRD55/ AP3B1/ ARL15/ ARRDC3
9R	5	150183011	150212275	29264	0,85	Deletion	IRGM
9R	6	94803	170804144	170709341	2,58	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
9R	7	52911	50158162	50105251	2,68	Trisomy	AAA1/ ABCA13/ ABCB5/ ACTB/ ADAP1/ ADCY1/ ADCYAP1R1/ AEBP1/ AGR2/ AGR3/ AHR/ AIMP2/ AMPH/ AMZ1/ ANKMY2/ ANLN/ AOA/ AQP1/ ARL4A/ AVL9
9R	7	50158163	50796449	638286	1,16	Deletion	DDC/ FIGLN1/ GRB10/ IKZF1/ region overlaps with 1.84% of C7orf72 / region overlaps with 26.82% of GRB10
9R	7	50796450	100426123	49629673	2,56	Trisomy	ABCB1/ ABCB4/ ABHD11/ ACHE/ ACN9/ ACTL6B/ ADAM22/ AGFG2/ AKAP9/ ANKIB1/ AP4M1/ ARPC1A/ ARPC1B/ ASB4/ ASL/ ASNS/ ATP5J2/ AUTS2/ AZGP1/ BAIAP2L1
9R	7	100459195	121576408	21117213	2,66	Trisomy	AASS/ ALKBH4/ ANKRD7/ AP1S1/ ARMC10/ ASZ1/ ATXN7L1/ BCAP29/ C7orf52/ C7orf53/ C7orf58/ C7orf60/ C7orf66/ CAPZA2/ CAV1/ CAV2/ CBL1/ CFTR/ CLDN15/ COG5
9R	7	134472174	145634371	11162197	2,54	Trisomy	ADCK2/ AGK/ AKR1D1/ ARHGEF5/ ARHGEF5L/ ATP6V0A4/ BRAF/ C7orf34/ C7orf49/ C7orf55/ CASP2/ CHRM2/ CLCN1/ CLEC2L/ CLEC5A/ CNOT4/ CREB3L2/ CTAGE4/ CTAGE4/ CTAGE6
9R	7	158389186	158413705	24519	0,96	Deletion	contained within WDR60
9R	7	158413705	158811019	397314	2,52	Trisomy	LOC154822/ VIPR2/ region overlaps with 4.52% of WDR60
9R	8	21193	146268972	146247779	2,70	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
9R	10	67340	135355061	135287721	3,47	Tetrasomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
9R	11	188950	1001148	812198	3,19	Trisomy	ANO9/ ATHL1/ B4GALNT4/ BET1L/ C11orf35/ CD151/ CEND1/ CHID1/ DEAF1/ DRD4/ EFCAB4A/ EPS8L2/ HRAS/ IFITM1/ IFITM2/ IFITM3/ IFITM5/ IRF7/ LOC143666/ LRDD
9R	11	1001149	1013051	11902	1,35	Deletion	region overlaps with 85.93% of MUC6 / region overlaps with 9.18% of AP2A2
9R	11	1013052	1057476	44424	3,13	Trisomy	region overlaps with 30.74% of MUC6
9R	11	1057476	1081834	24358	1,14	Deletion	region overlaps with 69.63% of MUC2
9R	11	1081834	1858283	776449	2,94	Trisomy	BRSK2/ CTSD/ DUSP8/ FAM99A/ FAM99B/ HCCA2/ KRTAP5-1/ KRTAP5-2/ KRTAP5-3/ KRTAP5-4/ KRTAP5-5/ KRTAP5-6/ LOC255512/ LOC338651/ LOC402778/ MUC5B/ SYT8/ TNNI2/ TOLLIP/ region overlaps with 1.23% of LSP1
9R	11	1858283	1933454	75171	1,33	Deletion	TNNT3/ region overlaps with 11.14% of MRPL23 / region overlaps with 15.68% of LSP1

9R	11	1933454	5739858	3806404	2,76	Trisomy	ART1/ ART5/ ASCL2/ C11orf21/ C11orf36/ C11orf40/ CARS/ CD81/ CDKN1C/ CHRNA10/ H19/ HBB/ HBBP1/ HBD/ HBE1/ HBG1/ HBG2/ IGF2/ IGF2AS/ INS
9R	11	5755808	134449983	128694175	2,74	Trisomy	AASDHPPT/ ABCC8/ ABCG4/ ABTB2/ ACAD8/ ACAT1/ ACCS/ ACCSL/ ACER3/ ACP2/ ACRV1/ ACTN3/ ACY3/ ADAMTS15/ ADAMTS8/ ADM/ ADRBK1/ AGBL2/ AHNAK/ AIP
9R	12	18273667	132287719	114014052	2,68	Trisomy	AAAS/ AACS/ ABCB9/ ABCC9/ ABCD2/ ACACB/ ACAD10/ ACADS/ ACCN2/ ACSS3/ ACTR6/ ACVR1B/ ACVRL1/ ADAMTS20/ ADCY6/ AEBP2/ AGAP2/ ALDH1L2/ ALDH2/ ALG10
9R	14	18085723	21840336	3754613	2,71	Trisomy	ANG/ APEX1/ C14orf176/ CCNB11P1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
9R	14	22053238	105406903	83353665	2,72	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
9R	16	18195	88799382	88781187	2,79	Trisomy	A2BP1/ AARS/ ABAT/ ABCA17P/ ABCA3/ ABCC1/ ABCC11/ ABCC12/ ABCC6/ ABCC6P1/ ABCC6P2/ ACD/ ACSF3/ ACSM1/ ACSM2A/ ACSM2B/ ACSM3/ ACSM5/ ADAD2/ ADAMTS18
9R	17	38474392	78638431	40164039	3,70	Tetrasomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1
9R	18	33309	76115555	76082246	3,44	Tetrasomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
9R	21	9758742	46942557	37183815	3,50	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
10D	1	197277844	197320715	42871	1,00	Deletion	region starts 182938 bp after MIR181A1
10D	5	142068673	142834682	766009	1,03	Deletion	ARHGAP26/ NR3C1
10D	6	94661	26942880	26848219	2,56	Trisomy	ABT1/ ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218
10D	6	27075369	77494919	50419550	2,56	Trisomy	AARS2/ ABCC10/ ABCF1/ AGER/ AGPAT1/ AIF1/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ B3GALT4/ B3GAT2/ BAG2/ BAI3/ BAK1/ BAT1/ BAT2/ BAT3/ BAT4
10D	6	77509499	103858144	26348645	2,64	Trisomy	AKIRIN2/ ANKRD6/ ASCC3/ BACH2/ BCKDHB/ C6orf162/ C6orf163/ C6orf164/ C6orf165/ C6orf167/ C6orf168/ CASP8AP2/ CCNC/ CGA/ CNR1/ COQ3/ CYB5R4/ DOPEY1/ ELOVL4/ EPHA7
10D	6	103870458	170892931	67022473	2,57	Trisomy	ACAT2/ ADAT2/ AGPAT4/ AHI1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ ALDH8A1/ AMD1/ ARG1/ ARHGAP18/ ARID1B/ ARMC2/ ASF1A/ ATG5/ BCLAF1/ BEND3/ BET3L
10D	9	36985524	37337110	351586	1,03	Deletion	region overlaps with 11.08% of PAX5 / region overlaps with 64.46% of ZCCHC7
10D	10	62759	111757751	111694992	2,56	Trisomy	A1CF/ ABCC2/ ABI1/ ACBD5/ ACBD7/ ACTA2/ ACTR1A/ ADAMTS14/ ADARB2/ ADK/ ADO/ AGAP11/ AGAP4/ AGAP5/ AGAP6/ AGAP7/ AGAP8/ AIFM2/ AKR1C1/ AKR1C2
10D	10	111839840	135356695	23516855	2,55	Trisomy	ABLIM1/ ACADSB/ ACSL5/ ADAM12/ ADAM8/ ADRA2A/ ADRB1/ AFAP1L2/ ARMS2/ ATE1/ ATRNL1/ BAG3/ BCCIP/ BNIP3/ BRWD2/ BTBD16/ BUB3/ C10orf118/ C10orf119/ C10orf120
10D	14	18072112	19258878	1186766	2,50	Trisomy	OR11H12/ P704P/ POTE6

10D	14	19258879	21961276	2702397	3,27	Tetrasomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H4/ OR11H6/ OR4E2
10D	14	21989775	105406818	83417043	3,34	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
10D	14	105406819	105487653	80834	0,98	Deletion	KIAA0125
10D	18	1543	76116030	76114487	3,27	Tetrasomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
10D	21	9758742	13389440	3630698	2,47	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 1.57% of C21orf99
10D	21	13389440	46921386	33531946	3,21	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
10D	22	14432516	15257690	825174	2,30	Trisomy	OR11H1/ POTEH
10R	1	197271511	197320131	48620	1,09	Deletion	region starts 176605 bp after MIR181A1
10R	5	142068673	142834682	766009	1,06	Deletion	ARHGAP26/ NR3C1
10R	6	94661	77493064	77398403	2,51	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ ALDH5A1/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ B3GAT2/ BAG2/ BAI3/ BAK1
10R	6	77509499	103866278	26356779	2,56	Trisomy	AKIRIN2/ ANKRD6/ ASCC3/ BACH2/ BCKDHB/ C6orf162/ C6orf163/ C6orf164/ C6orf165/ C6orf167/ C6orf168/ CASP8AP2/ CCNC/ CGA/ CNR1/ COQ3/ CYB5R4/ DOPEY1/ ELOVL4/ EPHA7
10R	6	103868748	170892931	67024183	2,53	Trisomy	ACAT2/ ADAT2/ AGPAT4/ AHI1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ ALDH8A1/ AMD1/ ARG1/ ARHGAP18/ ARID1B/ ARMC2/ ASF1A/ ATG5/ BCLAF1/ BEND3/ BET3L
10R	9	7777870	8959700	1181830	1,09	Deletion	C9orf123/ PTPRD/ region overlaps with 55.46% of PTPRD
10R	9	19773917	21032556	1258639	1,08	Deletion	KIAA1797/ MIR491/ MLLT3/ PTPLAD2/ region overlaps with 0.24% of SLC24A2
10R	9	21032557	22055290	1022733	0,40	biDeletion	C9orf53/ CDKN2A/ CDKN2B/ IFNA1/ IFNA10/ IFNA13/ IFNA14/ IFNA16/ IFNA17/ IFNA2/ IFNA21/ IFNA4/ IFNA5/ IFNA6/ IFNA7/ IFNA8/ IFNB1/ IFNE/ IFNW1/ KLHL9
10R	9	22055291	22525826	470535	1,08	Deletion	DMRTA1/ region overlaps with 11.86% of CDKN2BAS
10R	9	36985524	37337110	351586	1,03	Deletion	region overlaps with 11.08% of PAX5 / region overlaps with 64.46% of ZCCHC7
10R	10	62759	111757751	111694992	2,56	Trisomy	A1CF/ ABCC2/ ABI1/ ACBD5/ ACBD7/ ACTA2/ ACTR1A/ ADAMTS14/ ADARB2/ ADK/ ADO/ AGAP11/ AGAP4/ AGAP5/ AGAP6/ AGAP7/ AGAP8/ AIFM2/ AKR1C1/ AKR1C2
10R	10	111839840	135356695	23516855	2,55	Trisomy	ABLIM1/ ACADSB/ ACSL5/ ADAM12/ ADAM8/ ADRA2A/ ADRB1/ AFAP1L2/ ARMS2/ ATE1/ ATRNL1/ BAG3/ BCCIP/ BNIP3/ BRWD2/ BTBD16/ BUB3/ C10orf118/ C10orf119/ C10orf120
10R	11	36576711	36596381	19670	1,09	Deletion	contained within C11orf74
10R	14	18072112	19258878	1186766	2,50	Trisomy	OR11H12/ P704P/ POTEH
10R	14	19258879	21961276	2702397	3,27	Tetrasomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H4/ OR11H6/ OR4E2
10R	14	21989775	105406818	83417043	3,21	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7

10R	14	105406819	105487653	80834	0,98	Deletion	KIAA0125
10R	18	1543	76116030	76114487	3,27	Tetrasomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
10R	21	9758742	13363622	3604880	2,42	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 0.87% of C21orf99
10R	21	13363622	46921386	33557764	3,18	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
10R	22	14432516	15257690	825174	2,30	Trisomy	OR11H1/ POTEH
11D	3	44798693	45011564	212871	1,03	Deletion	MIR564/ TGM4/ TMEM42/ ZDHHC3/ region overlaps with 33.38% of KIF15 / region overlaps with 8.84% of EXOSC7
11D	4	506	191250146	191249640	2,56	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7
11D	6	94803	170804144	170709341	2,63	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
11D	10	67340	135355061	135287721	2,77	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
11D	12	9021395	10596730	1575335	1,28	Deletion	A2M/ C12orf59/ CD69/ CLEC12A/ CLEC12B/ CLEC1A/ CLEC1B/ CLEC2A/ CLEC2B/ CLEC2D/ CLEC7A/ CLEC9A/ CLECL1/ DDX12/ GABARAPL1/ KLRB1/ KLRC1/ KLRC2/ KLRC3/ KLRC4
11D	12	11756966	15425887	3668921	1,27	Deletion	APOLD1/ ARHGDI1B/ ART4/ ATF7IP/ BCL2L14/ C12orf36/ C12orf60/ C12orf69/ CDKN1B/ CREBL2/ DDX47/ DUSP16/ EMP1/ ERP27/ GPR19/ GPRC5A/ GPRC5D/ GRIN2B/ GSG1/ GUCY2C
11D	14	18085723	105406903	87321180	2,77	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
11D	17	6888	21390540	21383652	1,27	Deletion	ABR/ ACADVL/ ACAP1/ ADORA2B/ AIPL1/ AKAP10/ ALDH3A1/ ALDH3A2/ ALKBH5/ ALOX12/ ALOX12B/ ALOX12P2/ ALOX15/ ALOX15B/ ALOXE3/ AMAC1L3/ ANKFY1/ ARHGEF15/ ARRB2/ ASGR1
11D	17	21390540	78638431	57247891	2,81	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ACACA/ ACBD4/ ACCN1/ ACE/ ACRY/ ACOX1/ ACSF2/ ACTG1
11D	18	33309	76115555	76082246	2,73	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
11D	20	39744929	62426743	22681814	1,26	Deletion	ACOT8/ ADA/ ADNP/ ADRM1/ APCDD1L/ ARFGAP1/ ARFGEF2/ ARFRP1/ ATP5E/ ATP9A/ AURKA/ B4GALT5/ BCAS1/ BCAS4/ BHLHE23/ BIRC7/ BMP7/ C20orf106/ C20orf107/ C20orf108
11D	21	9758742	46942557	37183815	3,00	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
11R	3	44798693	45011564	212871	1,20	Deletion	MIR564/ TGM4/ TMEM42/ ZDHHC3/ region overlaps with 33.38% of KIF15 / region overlaps with 8.84% of EXOSC7
11R	4	506	191250146	191249640	2,65	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7

11R	6	94803	170804144	170709341	2,68	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
11R	8	21193	146268972	146247779	2,70	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
11R	9	40463	36876147	36835684	1,21	Deletion	ACER2/ ACO1/ ADAMTSL1/ AK3/ ANXA2P2/ APTX/ AQP3/ AQP7/ ARID3C/ B4GALT1/ BAG1/ BNC2/ C9orf100/ C9orf11/ C9orf123/ C9orf128/ C9orf131/ C9orf144/ C9orf144B/ C9orf150
11R	10	67340	135355061	135287721	2,77	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
11R	12	9021395	10596730	1575335	1,30	Deletion	A2M/ C12orf59/ CD69/ CLEC12A/ CLEC12B/ CLEC1A/ CLEC1B/ CLEC2A/ CLEC2B/ CLEC2D/ CLEC7A/ CLEC9A/ CLECL1/ DDX12/ GABARAPL1/ KLRB1/ KLRC1/ KLRC2/ KLRC3/ KLRC4
11R	12	11767899	15425887	3657988	1,27	Deletion	APOLD1/ ARHGDI1B/ ART4/ ATF7IP/ BCL2L14/ C12orf36/ C12orf60/ C12orf69/ CDKN1B/ CREBL2/ DDX47/ DUSP16/ EMP1/ ERP27/ GPR19/ GPRC5A/ GPRC5D/ GRIN2B/ GSG1/ GUCY2C
11R	14	18085723	44525738	26440015	2,77	Trisomy	ABHD4/ ACIN1/ ADCY4/ AKAP6/ ANG/ AP1G2/ AP4S1/ APEX1/ ARHGAP5/ BAZ1A/ BCL2L2/ BRMS1L/ C14orf119/ C14orf126/ C14orf128/ C14orf147/ C14orf165/ C14orf167/ C14orf176/ C14orf19
11R	17	17691901	21390540	3698639	1,38	Deletion	AKAP10/ ALDH3A1/ ALDH3A2/ ALKBH5/ ATPAF2/ B9D1/ C17orf103/ C17orf39/ CCDC144B/ CCDC144C/ CCDC144NL/ CYTSB/ DHRS7B/ DRG2/ EPN2/ EVPLL/ FAM106A/ FAM18B/ FAM83G/ FBXW10
11R	17	21390540	22319718	929178	2,74	Trisomy	FAM27L/ FLJ36000/ region overlaps with 0.54% of C17orf51
11R	17	26014654	78638431	52623777	2,74	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABC3/ ABI3/ ACACA/ ACBD4/ ACCN1/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1/ ADAM11
11R	20	39754501	62426743	22672242	1,30	Deletion	ACOT8/ ADA/ ADNP/ ADRM1/ APCDD1L/ ARFGAP1/ ARFGEF2/ ARFRP1/ ATP5E/ ATP9A/ AURKA/ B4GALT5/ BCAS1/ BCAS4/ BHLHE23/ BIRC7/ BMP7/ C20orf106/ C20orf107/ C20orf108
11R	21	9758742	46942557	37183815	2,98	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
12D	1	143802694	150822046	7019352	2,77	Trisomy	ACP6/ ADAMTSL4/ ANKRD34A/ ANKRD35/ ANP32E/ ANXA9/ APH1A/ ARNT/ BCL9/ BNIPL/ BOLA1/ C1orf230/ C1orf51/ C1orf54/ C1orf56/ C2CD4D/ CA14/ CD160/ CDC42SE1/ CGN
12D	1	150848459	229855886	79007427	2,52	Trisomy	ABCB10/ ABL2/ ACBD3/ ACBD6/ ACTA1/ ADAM15/ ADAMTS4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AGT/ AIDA/ AIM2/ ALDH9A1/ ANGEL2/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ APCS
12D	2	201057686	201250181	192495	1,14	Deletion	AOX1/ KCTD18/ SGOL2
12D	4	506	9822874	9822368	2,85	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ATP5I/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf6/ CCDC96/ CNO/ CPLX1/ CPZ/ CRIPAK/ CRMP1
12D	4	9843736	191250146	181406410	2,68	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA
12D	6	94803	28015395	27920592	2,81	Trisomy	ABT1/ ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218

12D	6	28063192	170804144	142740952	2,71	Trisomy	AARS2/ ABCC10/ ABCF1/ ACAT2/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH8A1/ AMD1/ ANKRD6/ ANKS1A
12D	8	21193	146268972	146247779	2,77	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
12D	10	67340	135355061	135287721	3,57	Tetrasomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
12D	11	188950	55171902	54982952	2,74	Trisomy	ABCC8/ ABTB2/ ACCS/ ACCSL/ ACP2/ ADM/ AGBL2/ ALKBH3/ ALX4/ AMBRA1/ AMPD3/ ANO3/ ANO5/ ANO9/ AP2A2/ APBB1/ API5/ APIP/ ARFGAP2/ ARFIP2
12D	11	55209299	127540639	72331340	2,77	Trisomy	AASDHPT/ ABCG4/ ACAT1/ ACER3/ ACRV1/ ACTN3/ ACY3/ ADRBK1/ AHNAK/ AIP/ ALDH3B1/ ALDH3B2/ ALG8/ ALG9/ ALKBH8/ AMICA1/ AMOTL1/ ANGPTL5/ ANKK1/ ANKRD13D
12D	11	127540639	128572728	1032089	3,64	Tetrasomy	C11orf45/ ETS1/ FLI1/ KCNJ1/ KCNJ5/ RICS/ TP53AIP1
12D	11	128624192	134449983	5825791	2,84	Trisomy	ACAD8/ ADAMTS15/ ADAMTS8/ APLP2/ B3GAT1/ BARX2/ GLB1L2/ GLB1L3/ IGSF9B/ JAM3/ LOC100128239/ LOC283174/ NCAPD3/ NCRNA00167/ NFRKB/ NTM/ OPCML/ PRDM10/ SNX19/ SPATA19
12D	12	20703	16739965	16719262	1,26	Deletion	A2M/ A2ML1/ ACRBP/ ACSM4/ ADIPOR2/ AICDA/ AKAP3/ ANO2/ APOBEC1/ APOLD1/ ARHGDI/ ART4/ ATF7IP/ ATN1/ B4GALNT3/ BCL2L14/ C12orf32/ C12orf36/ C12orf4/ C12orf5
12D	14	18085723	105390903	87305180	3,54	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
12D	16	3167278	4002029	834751	1,28	Deletion	BTBD12/ C16orf90/ CLUAP1/ CREBBP/ DNASE1/ MEFV/ NAT15/ NLRC3/ OR1F1/ OR1F2P/ OR2C1/ TIGD7/ TRAP1/ ZNF174/ ZNF200/ ZNF263/ ZNF434/ ZNF597/ ZNF75A/ region overlaps with 5.92% of ADCY9
12D	17	38659218	78638431	39979213	2,79	Trisomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1
12D	18	33309	76115555	76082246	2,76	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
12D	21	9758742	46942557	37183815	3,61	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
12R	1	143802694	150822046	7019352	2,73	Trisomy	ACP6/ ADAMTSL4/ ANKRD34A/ ANKRD35/ ANP32E/ ANXA9/ APH1A/ ARNT/ BCL9/ BNIPL/ BOLA1/ C1orf230/ C1orf51/ C1orf54/ C1orf56/ C2CD4D/ CA14/ CD160/ CDC42SE1/ CGN
12R	1	150848459	185002386	34153927	2,67	Trisomy	ABL2/ ACBD6/ ADAM15/ ADAMTS4/ ADAR/ ADCY10/ AIM2/ ALDH9A1/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ APC5/ APOA1BP/ APOA2/ APOBEC4/ AQP10/ ARHGAP30/ ARHGEF11/ ARHGEF2/ ARPC5
12R	1	187637333	205798568	18161235	2,67	Trisomy	ADIPOR1/ ADORA1/ ARL8A/ ASPM/ ATP2B4/ ATP6V1G3/ AVPR1B/ B3GALT2/ BTG2/ C1orf106/ C1orf116/ C1orf157/ C1orf186/ C1orf53/ C4BPA/ C4BPB/ CACNA1S/ CAMSAP1L1/ CD55/ CDC73
12R	4	506	9822874	9822368	2,85	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ATP5I/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf6/ CCDC96/ CNO/ CPLX1/ CPZ/ CRIPAK/ CRMP1
12R	4	9843736	191250146	181406410	2,68	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA

12R	5	172298378	180668700	8370322	2,72	Trisomy	AACSL/ ADAMTS2/ AGXT2L2/ ARL10/ ATP6V0E1/ B4GALT7/ BNIP1/ BOD1/ BTNL3/ BTNL8/ BTNL9/ C5orf25/ C5orf41/ C5orf45/ C5orf47/ C5orf60/ CANX/ CBY3/ CLK4/ CLTB
12R	6	94803	28015395	27920592	2,75	Trisomy	ABT1/ ACOT13/ ALDH5A1/ ATXN1/ BMP6/ BPHL/ BTN1A1/ BTN2A1/ BTN2A2/ BTN2A3/ BTN3A1/ BTN3A2/ BTN3A3/ C6orf105/ C6orf114/ C6orf145/ C6orf146/ C6orf195/ C6orf201/ C6orf218
12R	6	28063192	170804144	142740952	2,69	Trisomy	AARS2/ ABCC10/ ABCF1/ ACAT2/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH8A1/ AMD1/ ANKRD6/ ANKS1A
12R	8	21193	146268972	146247779	2,74	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADCK5/ ADCY8/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2
12R	9	40463	140185942	140145479	2,41	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACER2/ ACO1/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL1/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AK3/ AKAP2/ AKNA/ ALAD/ ALDH1A1
12R	10	67340	135355061	135287721	3,23	Tetrasomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
12R	11	188950	55135376	54946426	2,71	Trisomy	ABCC8/ ABTB2/ ACCS/ ACCSL/ ACP2/ ADM/ AGBL2/ ALKBH3/ ALX4/ AMBRA1/ AMPD3/ ANO3/ ANO5/ ANO9/ AP2A2/ APBB1/ API5/ APIP/ ARFGAP2/ ARFIP2
12R	11	55236974	134449983	79213009	2,74	Trisomy	AASDHPT/ ABCG4/ ACAD8/ ACAT1/ ACER3/ ACRV1/ ACTN3/ ACY3/ ADAMTS15/ ADAMTS8/ ADRBK1/ AHNAK/ AIP/ ALDH3B1/ ALDH3B2/ ALG8/ ALG9/ ALKBH8/ AMICA1/ AMOTL1
12R	14	18085723	105406903	87321180	3,48	Tetrasomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSAA1/ AK7
12R	17	38659218	78638431	39979213	2,76	Trisomy	AANAT/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2/ ANAPC11/ ANKFN1
12R	18	33309	31311692	31278383	2,72	Trisomy	ABHD3/ ADCYAP1/ AFG3L2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ B4GALT6/ C18orf1/ C18orf16/ C18orf18/ C18orf19/ C18orf2/ C18orf34/ C18orf45/ C18orf56/ C18orf8
12R	21	9758742	46942557	37183815	3,47	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
13D	1	143604249	144092506	488257	2,78	Trisomy	NBPF10/ NOTCH2NL/ PDE4DIP/ SEC22B/ region overlaps with 20.92% of PDE4DIP / region overlaps with 8.02% of PDE4DIP
13D	1	144690441	203560506	58870065	2,78	Trisomy	ABL2/ ACBD6/ ACP6/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ ANP32E/ ANXA9/ APCS/ APH1A/ APOA1BP
13D	4	19099	191167889	191148790	2,94	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7
13D	6	110391	170747903	170637512	2,91	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
13D	9	36431	36918706	36882275	2,83	Trisomy	ACER2/ ACO1/ ADAMTSL1/ AK3/ ANXA2P2/ APTX/ AQP3/ AQP7/ ARID3C/ B4GALT1/ BAG1/ BNC2/ C9orf100/ C9orf11/ C9orf123/ C9orf128/ C9orf131/ C9orf144/ C9orf144B/ C9orf150

13D	9	37071806	122818897	85747091	2,82	Trisomy	ABCA1/ ACTL7A/ ACTL7B/ AGTPBP1/ AKAP2/ AKNA/ ALAD/ ALDH1A1/ ALDH1B1/ ALDOB/ ALG2/ AMBP/ ANKRD18A/ ANKRD19/ ANKRD20A1/ ANKRD20A2/ ANKRD20A2/ ANKRD20A3/ ANKRD20A3/ ANKRD20A4
13D	9	122916922	140207188	17290266	2,73	Trisomy	ABCA2/ ABL1/ ABO/ ADAMTS13/ ADAMTSL2/ AGPAT2/ AIF1L/ AK1/ ANAPC2/ ANGPTL2/ ARPC5L/ ARRDC1/ ASB6/ ASS1/ BARHL1/ BAT2L1/ BRD3/ C8G/ C9orf106/ C9orf114
13D	10	101955	135284542	135182587	2,88	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
13D	16	26671	2355811	2329140	1,17	Deletion	ABCA3/ ARHGDIG/ AXIN1/ BAIAP3/ C16orf10/ C16orf11/ C16orf13/ C16orf35/ C16orf38/ C16orf42/ C16orf73/ C16orf79/ C16orf91/ C1QTNF8/ CACNA1H/ CASKIN1/ CCDC154/ CCDC78/ CHTF18/ CLCN7
13D	17	34647501	78605475	43957974	2,84	Trisomy	AANAT/ AARSD1/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2
13D	18	150887	76115555	75964668	2,92	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
13D	21	9887804	46902241	37014437	3,92	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
13R	1	143604249	144092506	488257	3,50	Tetrasomy	NBPF10/ NOTCH2NL/ PDE4DIP/ SEC22B/ region overlaps with 20.92% of PDE4DIP / region overlaps with 8.02% of PDE4DIP
13R	1	144690441	203560506	58870065	3,93	Tetrasomy	ABL2/ ACBD6/ ACP6/ ADAM15/ ADAMTS4/ ADAMTSL4/ ADAR/ ADCY10/ ADIPOR1/ ADORA1/ AIM2/ ALDH9A1/ ANGPTL1/ ANKRD36BL1/ ANKRD45/ ANP32E/ ANXA9/ APCS/ APH1A/ APOA1BP
13R	4	19099	191167889	191148790	2,96	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7
13R	6	110391	93479476	93369085	2,95	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ AKIRIN2/ ALDH5A1/ ANKRD6/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ B3GAT2/ BACH2
13R	6	93728762	170747903	77019141	2,95	Trisomy	ACAT2/ ADAT2/ AGPAT4/ AHI1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ ALDH8A1/ AMD1/ ARG1/ ARHGAP18/ ARID1B/ ARMC2/ ASCC3/ ASF1A/ ATG5/ BCLAF1/ BEND3
13R	9	36912942	37071806	158864	1,19	Deletion	region overlaps with 70.21% of PAX5
13R	9	122814113	122916922	102809	1,14	Deletion	region overlaps with 25.80% of CEP110 / region overlaps with 37.22% of C5
13R	10	101955	135284542	135182587	2,94	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
13R	11	28095295	28246831	151536	1,15	Deletion	contained within METT5D1
13R	16	26671	2336600	2309929	1,15	Deletion	ABCA3/ ARHGDIG/ AXIN1/ BAIAP3/ C16orf10/ C16orf11/ C16orf13/ C16orf35/ C16orf38/ C16orf42/ C16orf73/ C16orf79/ C16orf91/ C1QTNF8/ CACNA1H/ CASKIN1/ CCDC154/ CCDC78/ CHTF18/ CLCN7
13R	16	69522626	69735178	212552	3,57	Tetrasomy	contained within HYDIN / region overlaps with 54.89% of HYDIN
13R	17	34594670	78605475	44010805	2,93	Trisomy	AANAT/ AARSD1/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABI3/ ACBD4/ ACE/ ACLY/ ACOX1/ ACSF2/ ACTG1/ ADAM11/ AFMID/ AKAP1/ AMZ2
13R	18	150887	76115555	75964668	2,96	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1

13R	21	9887804	46902241	37014437	4,01	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
14D	1	111180503	111184864	4361	0,61	Deletion	region ends 30480 bp before CD53
14D	1	150822463	150855168	32705	0,73	Deletion	LCE3B/ LCE3C
14D	2	34554992	34590289	35297	0,87	Deletion	region starts 748203 bp after MYADML
14D	5	57361978	57369281	7303	0,89	Deletion	region ends 416286 bp before PLK2
14D	6	94661	54036094	53941433	2,61	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ ALDH5A1/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ BAK1/ BAT1/ BAT2/ BAT3
14D	6	54036094	54043515	7421	0,98	Deletion	intron of C6orf142
14D	6	54043515	170892931	116849416	2,69	Trisomy	ACAT2/ ADAT2/ AGPAT4/ AHI1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH8A1/ AMD1/ ANKRD6/ ARG1/ ARHGAP18/ ARID1B/ ARMC2/ ASCC3/ ASF1A/ ATG5
14D	8	21254	585271	564017	2,58	Trisomy	C8orf42/ FBXO25/ OR4F21/ RPL23AP53/ ZNF596
14D	8	585271	593580	8309	0,78	Deletion	region ends 10620 bp before ERICH1
14D	8	593580	16305294	15711714	2,60	Trisomy	AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ BLK/ C8orf12/ C8orf48/ C8orf74/ C8orf79/ CLDN23/ CLN8/ CSMD1/ CTSB/ DEFA1/ DEFA10P/ DEFA1B/ DEFA3/ DEFA4/ DEFA5/ DEFA6
14D	8	16305294	16325012	19718	1,19	Deletion	region starts 210622 bp after MSR1
14D	8	16325012	39447879	23122867	2,64	Trisomy	ADAM28/ ADAM32/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BMP1/ BNIP3L/ BRF2/ C8orf41/ C8orf58/ C8orf75/ C8orf80
14D	8	39482094	40302114	820020	2,73	Trisomy	ADAM18/ ADAM2/ C8orf4/ IDO1/ IDO2/ region overlaps with 2.14% of ADAM3A
14D	8	40302114	40308418	6304	1,33	Deletion	region starts 170135 bp after C8orf4
14D	8	40308418	112362062	72053644	2,70	Trisomy	ABRA/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ AP3M2/ ARFGEF1/ ARMC1/ ASPH/ ATP6V0D2/ ATP6V1C1/ ATP6V1H/ AZIN1/ BAALC/ BEYLA/ BHLHE22/ C8orf22/ C8orf34/ C8orf37
14D	8	112362062	112366946	4884	0,59	biDeletion	region ends 937387 bp before CSMD3
14D	8	112366946	115702441	3335495	2,79	Trisomy	CSMD3/ MIR2053
14D	8	115702441	115715390	12949	0,89	Deletion	region ends 774510 bp before TRPS1
14D	8	115715390	146268960	30553570	2,64	Trisomy	ADCK5/ ADCY8/ ANXA13/ ARC/ ASAP1/ ASAP1IT1/ ATAD2/ BAI1/ BOP1/ BREA2/ C8ORFK29/ C8orf30A/ C8orf31/ C8orf33/ C8orf51/ C8orf55/ C8orf73/ C8orf76/ C8orf77/ C8orf85
14D	10	62759	66977105	66914346	2,60	Trisomy	A1CF/ ABI1/ ACBD5/ ACBD7/ ADARB2/ ADO/ AGAP4/ AGAP6/ AGAP7/ AGAP8/ AKR1C1/ AKR1C2/ AKR1C3/ AKR1C4/ AKR1CL1/ AKR1E2/ ALOX5/ ANK3/ ANKRD16/ ANKRD26
14D	10	66977105	66992866	15761	0,79	Deletion	region ends 356865 bp before CTNNA3
14D	10	66992866	135356695	68363829	2,50	Trisomy	ABCC2/ ABLIM1/ ACADSB/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADD3/ ADK/ ADRA2A/ ADRB1/ AFAP1L2/ AGAP11/ AGAP5/ AIFM2/ ALDH18A1/ ANKRD1/ ANKRD2
14D	11	4924889	4932557	7668	0,67	Deletion	region overlaps with 0.25% of OR51A4
14D	14	18072124	21961276	3889152	2,53	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6

14D	14	21989775	105406818	83417043	2,53	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHTSA1/ AK7
14D	17	526	78643089	78642563	2,44	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
14D	18	1543	76116030	76114487	2,56	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
14D	21	9758742	41772389	32013647	3,38	Tetrasomy	ABCC13/ ADAMTS1/ ADAMTS5/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3/ C21orf119/ C21orf130/ C21orf131/ C21orf15
14D	21	41772389	41778387	5998	1,21	Deletion	contained within TMPRSS2
14D	21	41778387	46921386	5142999	3,03	Trisomy	ABCG1/ ADARB1/ AGPAT3/ AIRE/ C21orf121/ C21orf122/ C21orf125/ C21orf128/ C21orf129/ C21orf2/ C21orf29/ C21orf33/ C21orf56/ C21orf57/ C21orf58/ C21orf67/ C21orf70/ C21orf84/ C21orf90/ C2CD2
14R	1	111179095	111185486	6391	0,66	Deletion	region ends 29858 bp before CD53
14R	1	150822240	150855168	32928	0,60	Deletion	LCE3B/ LCE3C
14R	2	34564321	34590289	25968	0,67	Deletion	region starts 757532 bp after MYADML
14R	5	57359593	57369281	9688	0,75	Deletion	region ends 416286 bp before PLK2
14R	5	142607172	142756840	149668	0,88	Deletion	region overlaps with 79.61% of NR3C1
14R	6	94661	54036094	53941433	2,48	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ ALDH5A1/ ANKS1A/ APOBEC2/ APOM/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ BAK1/ BAT1/ BAT2/ BAT3
14R	6	54036094	54043515	7421	0,85	Deletion	intron of C6orf142
14R	6	54043516	88935609	34892093	2,65	Trisomy	AKIRIN2/ B3GAT2/ BAG2/ BAI3/ BCKDHB/ BEND6/ BMP5/ C6orf147/ C6orf150/ C6orf155/ C6orf162/ C6orf163/ C6orf164/ C6orf165/ C6orf221/ C6orf57/ CD109/ CGA/ CNR1/ COL12A1
14R	8	21254	585271	564017	2,47	Trisomy	C8orf42/ FBXO25/ OR4F21/ RPL23AP53/ ZNF596
14R	8	585271	593580	8309	0,66	Deletion	region ends 10620 bp before ERICH1
14R	8	593580	16305294	15711714	2,55	Trisomy	AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ BLK/ C8orf12/ C8orf48/ C8orf74/ C8orf79/ CLDN23/ CLN8/ CSMD1/ CTSB/ DEFA1/ DEFA10P/ DEFA1B/ DEFA3/ DEFA4/ DEFA5/ DEFA6
14R	8	16305294	16321049	15755	1,19	Deletion	region starts 210622 bp after MSR1
14R	8	16321049	39447879	23126830	2,61	Trisomy	ADAM28/ ADAM32/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BMP1/ BNIP3L/ BRF2/ C8orf41/ C8orf58/ C8orf75/ C8orf80
14R	8	39482094	40302114	820020	2,73	Trisomy	ADAM18/ ADAM2/ C8orf4/ IDO1/ IDO2/ region overlaps with 2.14% of ADAM3A
14R	8	40303351	40307779	4428	1,17	Deletion	region starts 171372 bp after C8orf4
14R	8	40307779	112362062	72054283	2,68	Trisomy	ABRA/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ AP3M2/ ARFGEF1/ ARMC1/ ASPH/ ATP6V0D2/ ATP6V1C1/ ATP6V1H/ AZIN1/ BAALC/ BEYLA/ BHLHE22/ C8orf22/ C8orf34/ C8orf37
14R	8	112362062	112366946	4884	0,55	biDeletion	region ends 937387 bp before CSMD3
14R	8	112366946	115702441	3335495	2,72	Trisomy	CSMD3/ MIR2053
14R	8	115702441	115715390	12949	0,81	Deletion	region ends 774510 bp before TRPS1

14R	8	115715390	146268960	30553570	2,61	Trisomy	ADCK5/ ADCY8/ ANXA13/ ARC/ ASAP1/ ASAP11T1/ ATAD2/ BAI1/ BOP1/ BREA2/ C8ORFK29/ C8orf30A/ C8orf31/ C8orf33/ C8orf51/ C8orf55/ C8orf73/ C8orf76/ C8orf77/ C8orf85
14R	9	11597082	15161674	3564592	1,12	Deletion	C9orf150/ CER1/ FREM1/ LOC389705/ MPDZ/ NFIB/ TYRP1/ ZDHHC21/ region overlaps with 0.02% of TTC39B
14R	9	20999381	21435602	436221	1,10	Deletion	IFNA1/ IFNA10/ IFNA13/ IFNA14/ IFNA16/ IFNA17/ IFNA2/ IFNA21/ IFNA4/ IFNA5/ IFNA6/ IFNA7/ IFNA8/ IFNB1/ IFNW1/ KLHL9/ region overlaps with 5.10% of PTPLAD2
14R	9	21435602	28922825	7487223	0,47	biDeletion	C9orf11/ C9orf53/ C9orf72/ C9orf82/ CDKN2A/ CDKN2B/ CDKN2BAS/ DMRTA1/ ELAVL2/ IFNE/ IFNK/ IFT74/ LINGO2/ LOC554202/ LRRRC19/ MIR31/ MIR873/ MIR876/ MOBKL2B/ MTAP
14R	9	29492688	31699432	2206744	1,10	Deletion	region starts 613734 bp after MIR873
14R	9	95941993	139913995	43972002	2,65	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL2/ AGPAT2/ AIF1L/ AK1/ AKAP2/ AKNA/ ALAD/ ALDOB/ ALG2/ AMBP/ ANAPC2/ ANGPTL2/ ANKS6
14R	10	18036145	66977105	48940960	2,55	Trisomy	A1CF/ ABI1/ ACBD5/ ADO/ AGAP4/ AGAP6/ AGAP7/ AGAP8/ ALOX5/ ANK3/ ANKRD26/ ANKRD30A/ ANTXRL/ ANUBL1/ ANXA2P3/ ANXA8/ ANXA8/ ANXA8L1/ ANXA8L1/ ANXA8L2
14R	10	66977105	66984444	7339	0,62	Deletion	region ends 365287 bp before CTNNA3
14R	10	66984444	135356695	68372251	2,48	Trisomy	ABCC2/ ABLIM1/ ACADSB/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADD3/ ADK/ ADRA2A/ ADRB1/ AFAP1L2/ AGAP11/ AGAP5/ AIFM2/ ALDH18A1/ ANKRD1/ ANKRD2
14R	11	4924889	4932266	7377	0,58	Deletion	region overlaps with 0.26% of OR51A4
14R	12	9523480	9579064	55584	0,72	Deletion	region starts 31444 bp after DDX12
14R	12	11589284	12093008	503724	1,07	Deletion	ETV6
14R	14	18072124	21961276	3889152	2,52	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
14R	14	21989775	102081086	80091311	2,48	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ AHS1/ AK7/ AKAP5/ AKAP6
14R	17	18556518	78550684	59994166	2,53	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ACACA/ ACBD4/ ACCN1/ ACE/ ACRYL/ ACOX1/ ACSF2/ ACTG1
14R	18	20188513	64590323	44401810	2,65	Trisomy	ACAA2/ ALPK2/ AQP4/ ASXL3/ ATP5A1/ ATP8B1/ B4GALT6/ BCL2/ BRUNOL4/ C18orf10/ C18orf16/ C18orf20/ C18orf21/ C18orf25/ C18orf26/ C18orf32/ C18orf34/ C18orf54/ CCBE1/ CCDC11
14R	21	9758742	41772389	32013647	3,26	Tetrasomy	ABCC13/ ADAMTS1/ ADAMTS5/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3/ C21orf119/ C21orf130/ C21orf131/ C21orf15
14R	21	41772389	41778387	5998	1,17	Deletion	contained within TMPRSS2
14R	21	41778387	46921386	5142999	2,97	Tetrasomy	ABCG1/ ADARB1/ AGPAT3/ AIRE/ C21orf121/ C21orf122/ C21orf125/ C21orf128/ C21orf129/ C21orf2/ C21orf29/ C21orf33/ C21orf56/ C21orf57/ C21orf58/ C21orf67/ C21orf70/ C21orf84/ C21orf90/ C2CD2
15D	1	150838887	150849395	10508	4,49	Tetrasomy	LCE3C
15D	4	2281	191261905	191259624	2,37	Trisomy	AADAT/ AASDH/ ABCA11P/ ABCE1/ ABCG2/ ABLIM2/ ACCN5/ ACOX3/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADD1/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7

15D	8	21254	117862895	117841641	2,36	Trisomy	ABRA/ ADAM18/ ADAM2/ ADAM28/ ADAM32/ ADAM3A/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADHFE1/ ADRA1A/ ADRB3/ AGPAT5/ AGPAT6/ AMAC1L2/ ANGPT1/ ANGPT2/ ANK1/ ANKRD46
15D	8	119436963	146268960	26831997	2,46	Trisomy	ADCK5/ ADCY8/ ANXA13/ ARC/ ASAP1/ ASAP1IT1/ ATAD2/ BAI1/ BOP1/ BREA2/ C8ORFK29/ C8orf30A/ C8orf31/ C8orf33/ C8orf51/ C8orf55/ C8orf73/ C8orf76/ C8orf77/ CHRAC1
15D	14	18072124	21963443	3891319	2,40	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1P1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H2/ OR11H4/ OR11H6
15D	14	21989775	106356483	84366708	2,40	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADAM6/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHTA1
15D	17	526	78643089	78642563	2,54	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
15D	18	1543	76116030	76114487	2,44	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
15D	20	1500443	1541876	41433	2,46	Trisomy	contained within SIRPB1 / region overlaps with 38.35% of SIRPB1
15D	21	9758742	46921386	37162644	3,01	Trisomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
15R	4	2281	9819342	9817061	2,59	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ATP5I/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf6/ CCDC96/ CNO/ CPLX1/ CPZ/ CRIPAK/ CRMP1
15R	4	9839654	191261905	181422251	2,52	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA
15R	8	21254	39369014	39347760	2,51	Trisomy	ADAM28/ ADAM32/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BLK/ BMP1/ BNIP3L/ BRF2
15R	8	39505236	40302959	797723	2,57	Trisomy	ADAM18/ ADAM2/ C8orf4/ IDO1/ IDO2
15R	8	40307779	117862895	77555116	2,50	Trisomy	ABRA/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ AP3M2/ ARFGEF1/ ARMC1/ ASPH/ ATP6V0D2/ ATP6V1C1/ ATP6V1H/ AZIN1/ BAALC/ BEYLA/ BHLHE22/ C8orf22/ C8orf34/ C8orf37
15R	8	119436963	134234089	14797126	2,53	Trisomy	ADCY8/ ANXA13/ ASAP1/ ASAP1IT1/ ATAD2/ C8orf76/ COL14A1/ COLEC10/ DEPDC6/ DERL1/ DSCC1/ EFR3A/ ENPP2/ FAM49B/ FAM83A/ FAM84B/ FAM91A1/ FBXO32/ FER1L6/ GSDMC
15R	8	134246380	146268960	12022580	2,60	Trisomy	ADCK5/ ARC/ BAI1/ BOP1/ BREA2/ C8ORFK29/ C8orf30A/ C8orf31/ C8orf33/ C8orf51/ C8orf55/ C8orf73/ C8orf77/ CHRAC1/ COL22A1/ COMMD5/ CPSF1/ CYC1/ CYHR1/ CYP11B1
15R	9	20610931	21314491	703560	1,07	Deletion	IFNA10/ IFNA14/ IFNA16/ IFNA17/ IFNA21/ IFNA4/ IFNA5/ IFNA7/ IFNB1/ IFNW1/ KIAA1797/ MIR491/ PTPLAD2/ region overlaps with 0.23% of MLLT3
15R	9	21314491	21794047	479556	0,64	biDeletion	IFNA1/ IFNA13/ IFNA2/ IFNA6/ IFNA8/ IFNE/ KLHL9/ LOC554202/ MIR31/ region overlaps with 0.29% of MTAP
15R	9	21794047	22534376	740329	0,38	biDeletion	C9orf53/ CDKN2A/ CDKN2B/ CDKN2BAS/ DMRTA1/ region overlaps with 8.36% of MTAP
15R	9	22534376	23453170	918794	0,75	Deletion	region starts 91903 bp after DMRTA1
15R	9	23453170	39238497	15785327	1,07	Deletion	ACO1/ ALDH1B1/ ANKRD18A/ ANXA2P2/ APTX/ AQP3/ AQP7/ ARID3C/ B4GALT1/ BAG1/ C9orf100/ C9orf11/ C9orf122/ C9orf128/ C9orf131/ C9orf144/ C9orf144B/ C9orf23/ C9orf24/ C9orf25

15R	14	18072124	21961276	3889152	2,55	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
15R	14	22064254	105406818	83342564	2,52	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
15R	17	526	78643089	78642563	2,54	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
15R	18	1543	76116030	76114487	2,51	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
15R	21	9758742	13376955	3618213	2,55	Trisomy	BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ TPTE/ region overlaps with 1.23% of C21orf99
15R	21	13376955	46921386	33544431	3,82	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BRWD1/ BTG3/ C21orf119/ C21orf121/ C21orf122/ C21orf125/ C21orf128
16D	3	68829055	68830775	1720	0,68	Deletion	region ends 32832 bp before FAM19A4
16D	4	2281	34463122	34460841	2,87	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ ATP5I/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf52/ C4orf6/ CC2D2A
16D	4	34480571	191261905	156781334	2,86	Trisomy	AADAT/ AASDH/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA
16D	6	94661	170892931	170798270	2,87	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACAT2/ ACOT13/ ADAT2/ AGER/ AGPAT1/ AGPAT4/ AHI1/ AIF1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ AKIRIN2/ ALDH5A1/ ALDH8A1
16D	8	21254	39452297	39431043	2,87	Trisomy	ADAM28/ ADAM32/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ AGPAT5/ AMAC1L2/ ANGPT2/ ARHGEF10/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BLK/ BMP1/ BNIP3L
16D	8	39481466	146268960	106787494	2,88	Trisomy	ABRA/ ADAM18/ ADAM2/ ADCK5/ ADCY8/ ADHFE1/ AGPAT6/ ANGPT1/ ANK1/ ANKRD46/ ANXA13/ AP3M2/ ARC/ ARFGEF1/ ARMC1/ ASAP1/ ASAP1IT1/ ASPH/ ATAD2/ ATP6V0D2
16D	9	36587	140211216	140174629	2,84	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACER2/ ACO1/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL1/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AK3/ AKAP2/ AKNA/ ALAD/ ALDH1A1
16D	10	62759	135356695	135293936	2,88	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
16D	14	18072124	21551576	3479452	2,94	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
16D	14	22024501	105406818	83382317	2,86	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHS1/ AK7
16D	15	22226103	22266940	40837	0,79	Deletion	region ends 87457 bp before PWRN1
16D	15	32510409	32592633	82224	3,65	Tetrasomy	region overlaps with 7.97% of GOLGA8A
16D	15	51571518	51577774	6256	1,11	Deletion	region ends 15456 bp before WDR72
16D	15	82332815	82336344	3529	0,94	Deletion	intron of ADAMTSL3

16D	17	526	78643089	78642563	2,89	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
16D	18	1543	76116030	76114487	2,87	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
16D	21	9758742	46921386	37162644	3,77	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3
16D	X	2708815	154599662	151890847	3,59	Tetrasomy	ABCB7/ ABCD1/ ACE2/ ACOT9/ ACRC/ ACSL4/ ACTRT1/ AFF2/ AGTR2/ AIFM1/ AKAP14/ AKAP4/ ALAS2/ ALG13/ AMELX/ AMMECR1/ AMOT/ ANKRD58/ AP1S2/ APEX2
16R	3	47125691	47152935	27244	1,10	Deletion	contained within SETD2
16R	3	68828961	68830775	1814	0,69	Deletion	region ends 32832 bp before FAM19A4
16R	3	69591622	69672989	81367	1,20	Deletion	region starts 73501 bp after FRMD4B
16R	4	2281	34455442	34453161	2,90	Trisomy	ABCA11P/ ABLIM2/ ACOX3/ ADD1/ ADRA2C/ AFAP1/ ANAPC4/ ATP5I/ BOD1L/ BST1/ C1QTNF7/ C4orf10/ C4orf23/ C4orf42/ C4orf44/ C4orf48/ C4orf50/ C4orf52/ C4orf6/ CC2D2A
16R	4	34495327	69057543	34562216	2,89	Trisomy	AASDH/ APBB2/ ARAP2/ ARL9/ ATP10D/ ATP8A1/ BEND4/ C4orf14/ C4orf19/ C4orf34/ CENPC1/ CEP135/ CHIC2/ CHRNA9/ CLOCK/ CNGA1/ COMMD8/ CORIN/ COX7B2/ CWH43
16R	4	69096405	191261905	122165500	2,88	Trisomy	AADAT/ ABCE1/ ABCG2/ ACCN5/ ACSL1/ ADAD1/ ADAM29/ ADAMTS3/ ADH1A/ ADH1B/ ADH1C/ ADH4/ ADH5/ ADH6/ ADH7/ AFF1/ AFM/ AFP/ AGA/ AGPAT9
16R	6	94661	103841520	103746859	2,89	Trisomy	AARS2/ ABCC10/ ABCF1/ ABT1/ ACOT13/ AGER/ AGPAT1/ AIF1/ AKIRIN2/ ALDH5A1/ ANKRD6/ ANKS1A/ APOBEC2/ APOM/ ASCC3/ ATF6B/ ATP6V1G2/ ATXN1/ B3GALT4/ B3GAT2
16R	6	103858144	170892931	67034787	2,89	Trisomy	ACAT2/ ADAT2/ AGPAT4/ AHI1/ AIG1/ AIM1/ AKAP12/ AKAP7/ AKD1/ ALDH8A1/ AMD1/ ARG1/ ARHGAP18/ ARID1B/ ARMC2/ ASF1A/ ATG5/ BCLAF1/ BEND3/ BET3L
16R	7	52911	38273603	38220692	1,14	Deletion	AAA1/ ABCB5/ ACTB/ ADAP1/ ADCYAP1R1/ AGR2/ AGR3/ AHR/ AIMP2/ AMZ1/ ANKMY2/ ANLN/ AOA/ AQP1/ ARL4A/ AVL9/ BBS9/ BMPER/ BZW2/ C1GALT1
16R	7	38273603	38323288	49685	3,94	Tetrasomy	region overlaps with 12.42% of TARP
16R	7	38355929	58023918	19667989	1,15	Deletion	ABCA13/ ADCY1/ AEBP1/ AMPH/ BLVRA/ C7orf10/ C7orf11/ C7orf25/ C7orf36/ C7orf40/ C7orf44/ C7orf57/ C7orf65/ C7orf69/ C7orf72/ CAMK2B/ CCM2/ CCT6A/ CDC14C/ CDK13
16R	7	58023918	158819766	100795848	2,92	Trisomy	AASS/ ABCB1/ ABCB4/ ABCB8/ ABCF2/ ABHD11/ ABP1/ ACCN3/ ACHE/ ACN9/ ACTL6B/ ACTR3B/ ACTR3C/ ADAM22/ ADCK2/ AGAP3/ AGBL3/ AGFG2/ AGK/ AHCYL2
16R	8	21254	39452297	39431043	2,89	Trisomy	ADAM28/ ADAM32/ ADAM5P/ ADAM7/ ADAM9/ ADAMDEC1/ ADRA1A/ ADRB3/ AGPAT5/ AMAC1L2/ ANGPT2/ ARHGAP10/ ASAH1/ ASH2L/ ATP6V1B2/ BAG4/ BIN3/ BLK/ BMP1/ BNIP3L
16R	8	39481466	71116653	31635187	2,91	Trisomy	ADAM18/ ADAM2/ ADHFE1/ AGPAT6/ ANK1/ AP3M2/ ARFGF1/ ARMC1/ ASPH/ ATP6V1H/ BEYLA/ BHLHE22/ C8orf22/ C8orf34/ C8orf4/ C8orf40/ C8orf44/ C8orf45/ C8orf46/ C8orf71
16R	8	71123827	146268960	75145133	2,89	Trisomy	ABRA/ ADCK5/ ADCY8/ ANGPT1/ ANKRD46/ ANXA13/ ARC/ ASAP1/ ASAP1IT1/ ATAD2/ ATP6V0D2/ ATP6V1C1/ AZIN1/ BAALC/ BAI1/ BOP1/ BREA2/ C8ORF29/ C8orf30A/ C8orf31
16R	9	36587	140211216	140174629	2,85	Trisomy	ABCA1/ ABCA2/ ABL1/ ABO/ ACER2/ ACO1/ ACTL7A/ ACTL7B/ ADAMTS13/ ADAMTSL1/ ADAMTSL2/ AGPAT2/ AGTPBP1/ AIF1L/ AK1/ AK3/ AKAP2/ AKNA/ ALAD/ ALDH1A1

16R	10	62759	135356695	135293936	2,86	Trisomy	A1CF/ ABCC2/ ABI1/ ABLIM1/ ACADSB/ ACBD5/ ACBD7/ ACSL5/ ACTA2/ ACTR1A/ ADAM12/ ADAM8/ ADAMTS14/ ADARB2/ ADD3/ ADK/ ADO/ ADRA2A/ ADRB1/ AFAP1L2
16R	12	11926923	11951664	24741	1,16	Deletion	region overlaps with 51.21% of ETV6
16R	14	18072124	21549544	3477420	2,90	Trisomy	ANG/ APEX1/ C14orf176/ CCNB1IP1/ CHD8/ FAM12A/ FAM12B/ FLJ10357/ HNRNPC/ KLHL33/ METT11D1/ METTL3/ MIR1201/ NDRG2/ OR10G2/ OR10G3/ OR11G2/ OR11H12/ OR11H4/ OR11H6
16R	14	22024501	105406818	83382317	2,86	Trisomy	ABCD4/ ABHD12B/ ABHD4/ ACIN1/ ACOT1/ ACOT2/ ACOT4/ ACOT6/ ACTN1/ ACTR10/ ACYP1/ ADAM20/ ADAM21/ ADAM21P/ ADCK1/ ADCY4/ ADSSL1/ AHNAK2/ AHSA1/ AK7
16R	15	22223341	22273037	49696	0,89	Deletion	region ends 81360 bp before PWRN1
16R	15	32510009	32611577	101568	3,56	Tetrasomy	region overlaps with 6.69% of GOLGA8B / region overlaps with 6.84% of GOLGA8A
16R	15	51571518	51577774	6256	1,11	Deletion	region ends 15456 bp before WDR72
16R	15	82332815	82336344	3529	0,94	Deletion	intron of ADAMTSL3
16R	16	3713395	3763668	50273	1,07	Deletion	region overlaps with 96.69% of CREBBP
16R	17	526	78643089	78642563	2,83	Trisomy	AANAT/ AARSD1/ AATF/ AATK/ ABCA10/ ABCA5/ ABCA6/ ABCA8/ ABCA9/ ABCC3/ ABHD15/ ABI3/ ABR/ ACACA/ ACADVL/ ACAP1/ ACBD4/ ACCN1/ ACE/ ACLY
16R	18	1543	76116030	76114487	2,86	Trisomy	ABHD3/ ACAA2/ ADCYAP1/ ADNP2/ AFG3L2/ ALPK2/ ANKRD12/ ANKRD29/ ANKRD30B/ APCDD1/ AQP4/ ARHGAP28/ ASXL3/ ATP5A1/ ATP8B1/ ATP9B/ B4GALT6/ BCL2/ BRUNOL4/ C18orf1
16R	21	9758742	46921386	37162644	3,71	Tetrasomy	ABCC13/ ABCG1/ ADAMTS1/ ADAMTS5/ ADARB1/ AGPAT3/ AIRE/ APP/ ATP5J/ ATP5O/ B3GALT5/ BACE2/ BACH1/ BAGE/ BAGE2/ BAGE3/ BAGE4/ BAGE5/ BRWD1/ BTG3

Genomic positions according to NCBI Build, Version 36.1.

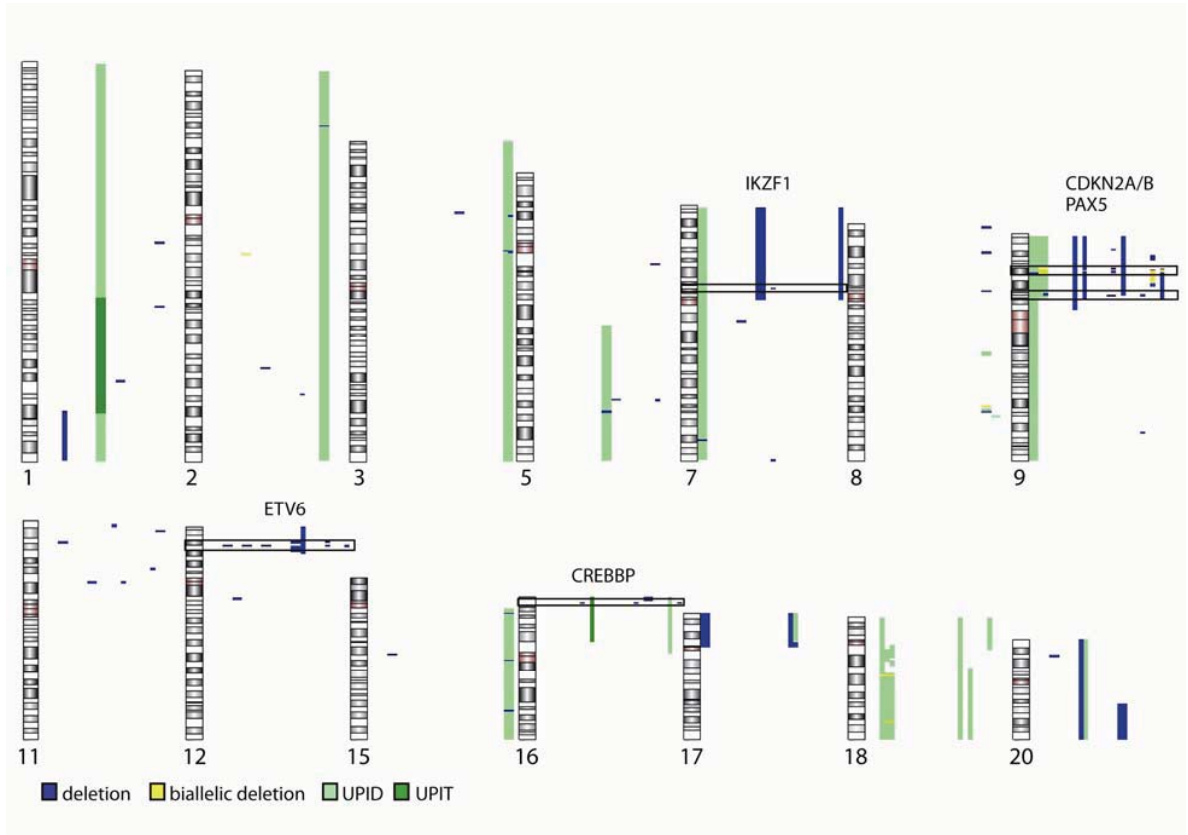


Figure S1. Overview of deletions and UPID/UPIT of selected chromosomes with recurrent genomic aberrations of 16 HD ALL relapse cases. Numbers below the cytoband refer to chromosome numbers. Each column to the right of the cytoband represents results from diagnosis/relapse samples from all cases (#1-16 from left to right) with the respective aberration (see color code) in a particular region. Rectangles show recurrently affected regions comprising the genes indicated above.

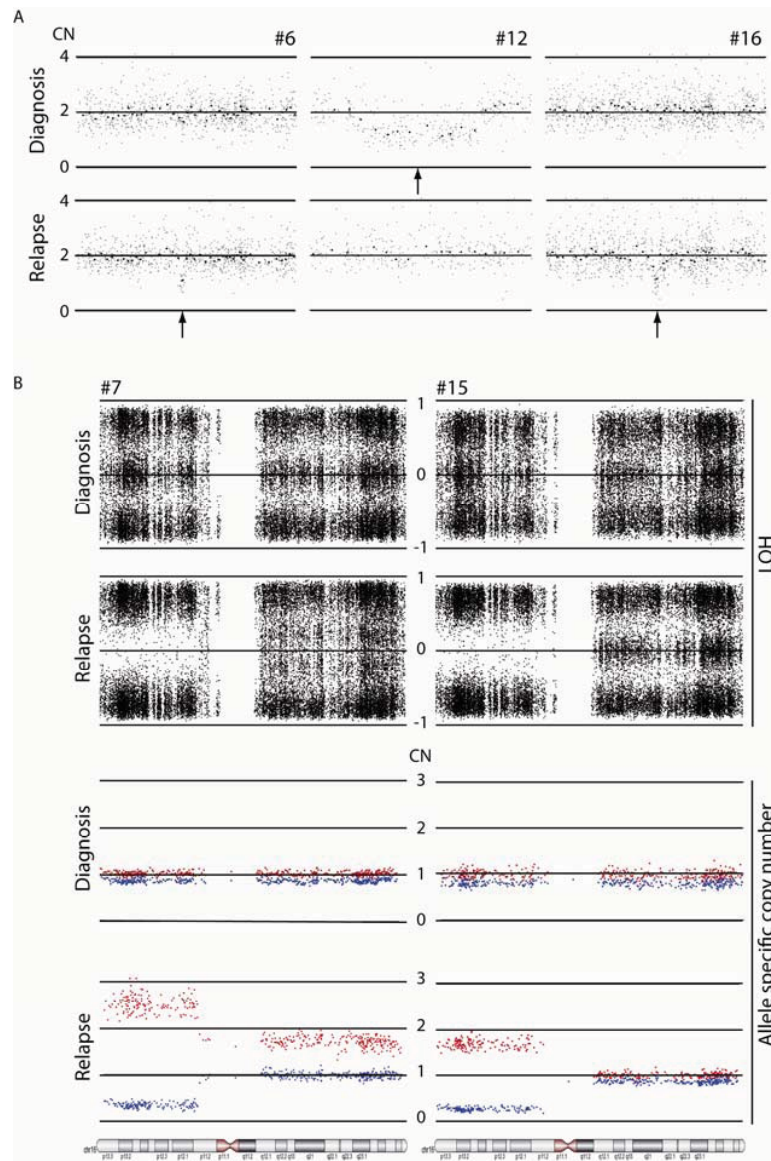


Figure S2. Deletion and LOH/UPID analysis of chromosome 16 including *CREBBP*
 (A) Copy numbers (CN) of genomic deletions at chromosome 16p encompassing the *CREBBP* gene indicated by arrows in cases #6, 12 and 16 are shown. The grey dots represent the raw copy number estimates at each marker. The black dots are the smoothed value of 20 copy number estimates in the defined region. (B) UPID at 16p including *CREBBP* in cases #7 and 15. The upper part of the figure shows the allelic ratios in unpaired LOH analysis of chromosome 16 in diagnosis and relapse samples. In homozygous stretches the spots migrate towards 1 (AA calls) and -1 (BB calls) at relapse. 0 corresponds to heterozygous calls (AB calls). The lower part of the graph displays allele specific copy number analysis of chromosome 16. The maximum and minimum alleles are represented in red and blue dots, respectively. AsCN shows loss of one allele and a corresponding gain of the other allele in a region on chromosome 16p leading to UPIT and UPID in patient #7 and 15, respectively.

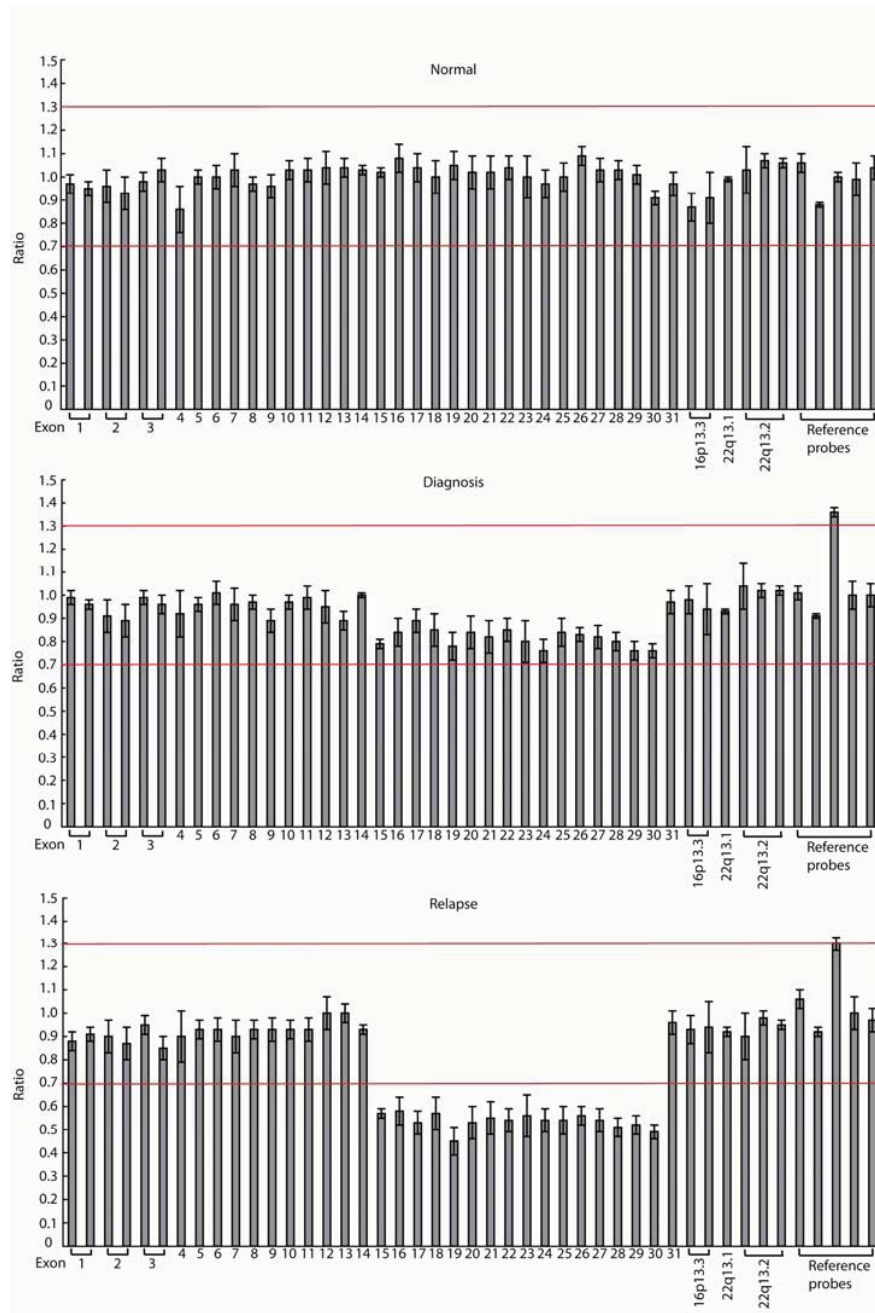


Figure S3. MLPA confirming the heterozygous *CREBBP* deletion with SALSA MLPA kit P313-A1 *CREBBP* in case #6. Normalized DNA copy number ratios of *CREBBP* exon 1-31 (indicated at the bottom of the respective bars). Red lines depict thresholds of 1.3 and 0.7 (range for two copies), to identify copy gains and losses. A threshold between 0.7 and 0.3 represents a DNA copy number of 1. The matched remission sample (representing the constitutional genotype without copy number changes) is shown in the top diagram. At relapse (bottom graph) a monoallelic focal deletion of *CREBBP* exons 15-30 is seen. Next to the specific *CREBBP* exon probes are probes on 16p13.3, 22q13.1 and 22q13.2 and the reference probes (corresponding to genomic location 1q44, 2q31, 8q24, 10q22 and 11q13, from left to right) that confirm a trisomy 8 in the diagnosis (middle) and relapse sample (bottom).