LETTER TO THE EDITOR

Clinical and laboratory diversity of diffuse large B-cell lymphomas in children with Nijmegen breakage syndrome

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APPENDIX

Title: **Clinical and laboratory diversity of diffuse large B-cell lymphomas in children with Nijmegen breakage syndrome.**

Agata Pastorczak[1], Bartosz Szmyd[1], Marcin Braun[2], Joanna Madzio[1], Kamila Wypyszczak[1], Pawel Sztromwasser[3], Wojciech Fendler[3], Marzena Wojtaszewska[4], Jedrzej Chrzanowski[3], Wieslawa Grajkowska[5], Hanna Gregorek[6], Anna Wakulinska[7], Bernarda Kazanowska[8], Zdenka Krenova[9], Dilys D. Weijers[10], Roland P. Kuiper[10,11], Wojciech Mlynarski[1]

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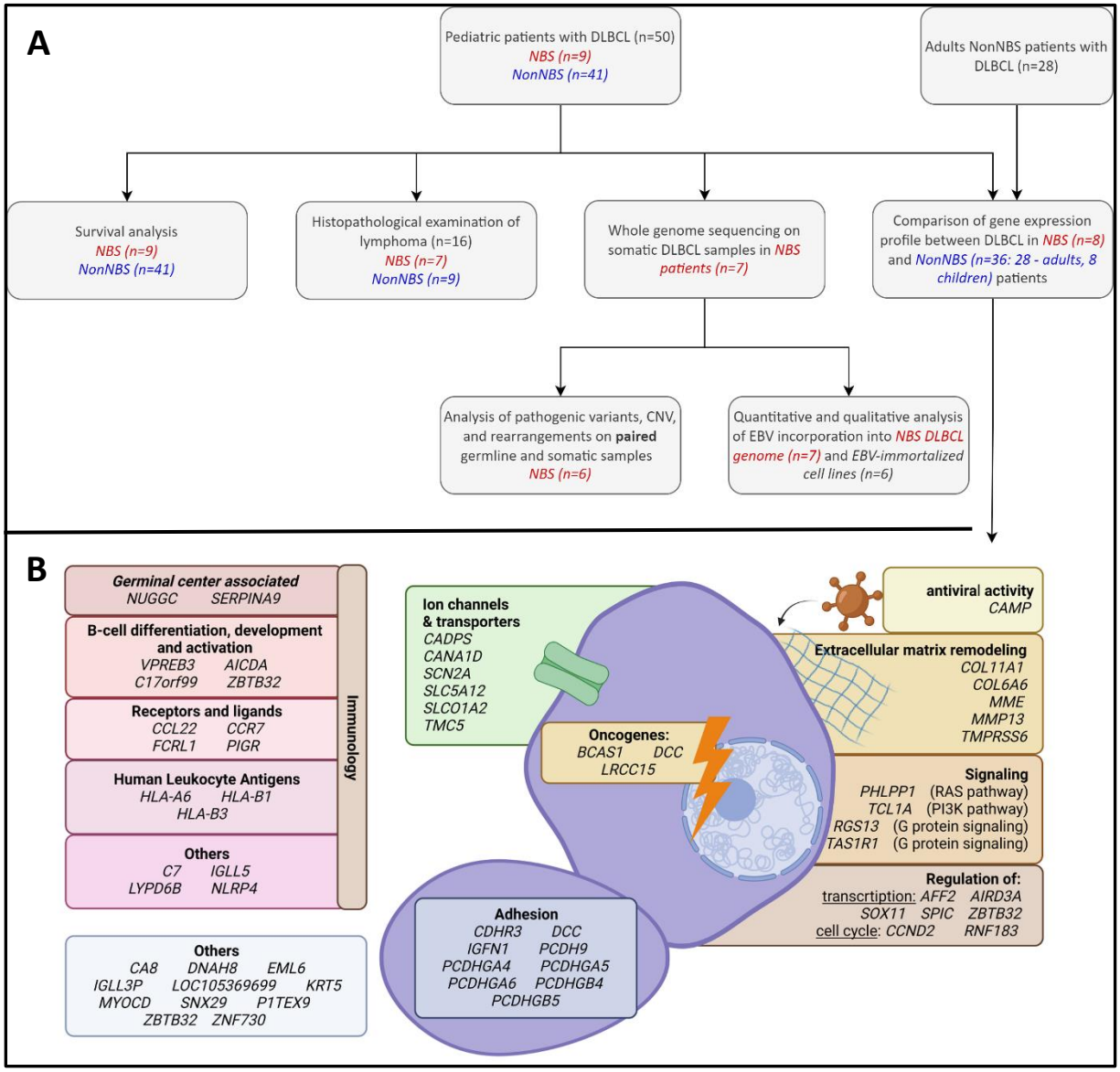
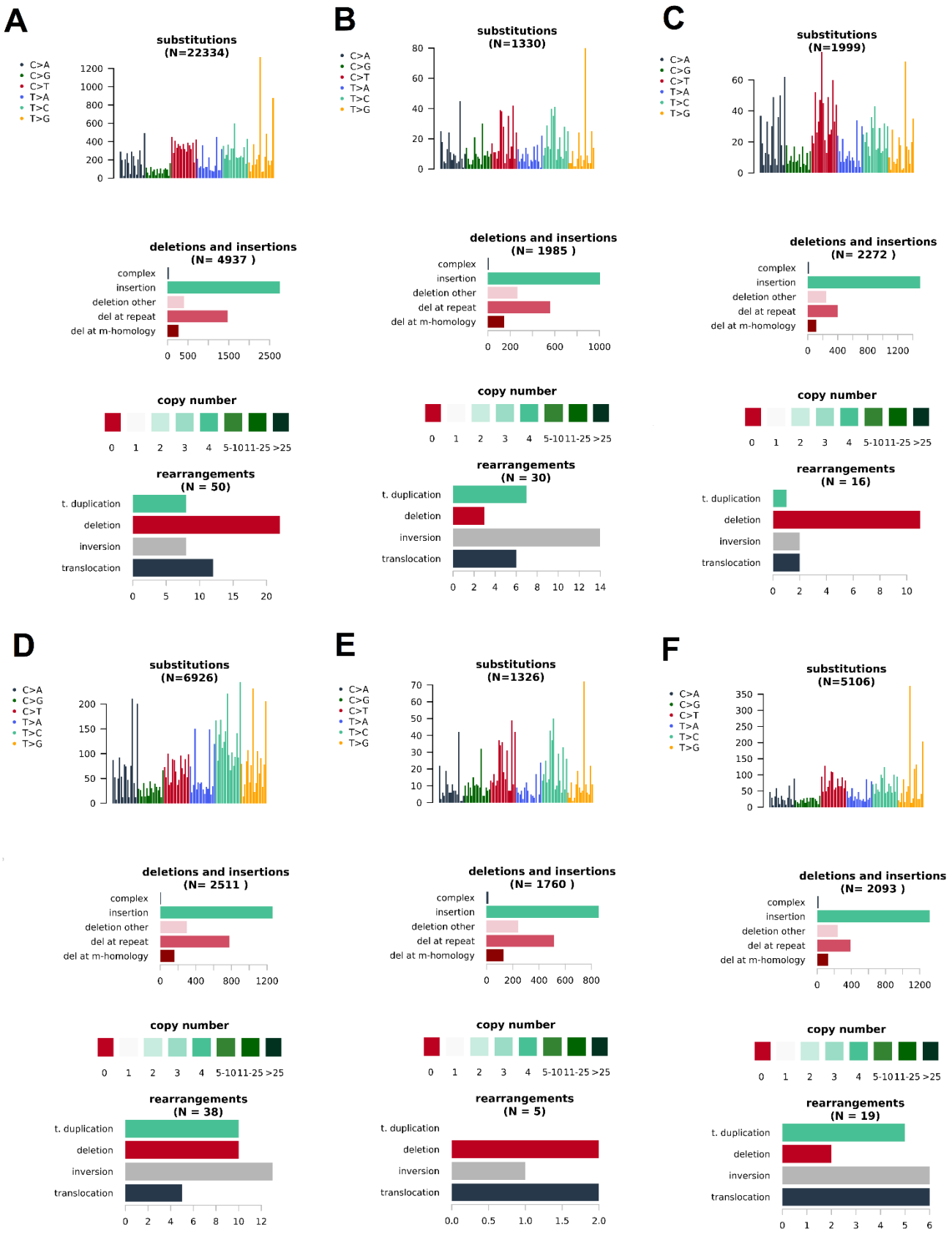
Supplementary Figure 1A. The algorithm of the study.**1B.** Schematic overview of differentially expressed genes between indicated on the Figure 1B-G groups based on their cellular function



Supplementary Figure 2. The frequencies of the particular types of whole genome aberrations in DLBCL in patients with NBS.



Supplementary Table 1. The recurrent sites of EBV incorporation into **(A)** DLBCL genomes in patients with NBS **(B)** selected recurrent sites of EBV incorporation into EBV-immortalized cell lines depending on the status of NBN gene deletion.

A.

DLBCL_NBS1				DLBCL_NBS2				DLBCL_NBS3			
Location	**Size**	**Tags**	**Splitters**	**Location**	**Size**	**Tags**	**Splitters**	**Location**	**Size**	**Tags**	**Splitters**
14:99887280-99887288	8	25	11	14:99887284-99887288	4	11	0	14:99887281-99887287	6	8	2
2:33141280-33141666	386	1597	571	2:33141296-33141626	330	329	25	2:33141296-33141667	371	583	228
7:105741882-105742671	789	11	9	7:105741881-105741885	4	6	2	7:105741882-105741886	4	9	6

B.

HOMO_NBN1 (EBV-immortalized cell line carrying homozygous c.657_661del5, p.Lys219Asnfs in the *NBN* gene)								
Hotspot	**chr**	**start**	**end**	**ebv_cluster**	**ebv_chr**	**ebv_start**	**ebv_end**	**split reads**
14_hs1	14	99887284	99887287	14_hs1_ebv_cluster1	NC_007605	35383	37322	18
2_hs2	2	33141281	33141665	2_hs2_ebv_cluster1	NC_007605	149	11994	133
2_hs2	2	33141281	33141665	2_hs2_ebv_cluster2	NC_007605	35239	38280	354
2_hs2	2	33141281	33141665	2_hs2_ebv_cluster3	NC_007605	39691	139619	1410
2_hs2	2	33141281	33141665	2_hs2_ebv_cluster4	NC_007605	151550	169619	315
2_hs2	2	33141281	33141665	2_hs2_ebv_cluster5	NC_007605	171643	171737	42

HETERO_NBN1 (EBV-immortalized cell line carrying heterozygous c.657_661del5, p.Lys219Asnfs in the *NBN* gene)								
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster1	NC_007605	1666	2808	8
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster10	NC_007605	75896	80379	16
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster11	NC_007605	81991	87680	18
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster12	NC_007605	88890	91557	6
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster13	NC_007605	94772	98309	12
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster14	NC_007605	99457	102583	10
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster15	NC_007605	103779	107646	10
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster16	NC_007605	111997	114244	8
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster17	NC_007605	118983	120376	6
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster18	NC_007605	123808	124935	6
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster19	NC_007605	125945	129901	15
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster2	NC_007605	8075	10617	9
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster20	NC_007605	131155	132786	12
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster21	NC_007605	137156	139316	9
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster22	NC_007605	152953	156408	12
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster23	NC_007605	167242	169541	14
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster24	NC_007605	170571	170637	6
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster3	NC_007605	11678	11991	10
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster4	NC_007605	36323	38272	107
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster5	NC_007605	41272	47986	26
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster6	NC_007605	49160	54496	20
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster7	NC_007605	55541	59928	16
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster8	NC_007605	61704	67957	18
14_hs5	14	99887275	99887290	14_hs5_ebv_cluster9	NC_007605	72715	74513	6
2_hs2	2	33141264	33141666	2_hs2_ebv_cluster1	NC_007605	0	11994	735
2_hs2	2	33141264	33141666	2_hs2_ebv_cluster2	NC_007605	35225	38282	2773
2_hs2	2	33141264	33141666	2_hs2_ebv_cluster3	NC_007605	39694	139621	8634
2_hs2	2	33141264	33141666	2_hs2_ebv_cluster4	NC_007605	151550	171767	2900
7_hs9	7	105741881	105741889	7_hs9_ebv_cluster1	NC_007605	36488	36900	33
7_hs9	7	105741881	105741889	7_hs9_ebv_cluster2	NC_007605	48126	49782	6

7_hs9	7	105741881	105741889	7_hs9_ebv_cluster3	NC_007605	95587	96494	8
7_hs9	7	105741881	105741889	7_hs9_ebv_cluster4	NC_007605	168559	170670	10
WILD TYPE_NBN1 (EBV-immortalized cell line carrying wild type *NBN* gene)								
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster1	NC_007605	622	5167	19
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster10	NC_007605	118401	139215	120
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster11	NC_007605	151550	152344	6
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster12	NC_007605	153787	165690	52
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster13	NC_007605	167203	170615	22
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster2	NC_007605	6319	8400	17
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster3	NC_007605	9653	11990	43
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster4	NC_007605	35317	38278	169
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster5	NC_007605	39771	74551	214
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster6	NC_007605	75814	81859	19
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster7	NC_007605	83003	91521	42
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster8	NC_007605	92595	96602	27
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster9	NC_007605	97743	116977	96
2_hs4	2	33141266	33141666	2_hs4_ebv_cluster1	NC_007605	0	12113	1902
2_hs4	2	33141266	33141666	2_hs4_ebv_cluster2	NC_007605	35220	38281	4164
2_hs4	2	33141266	33141666	2_hs4_ebv_cluster3	NC_007605	39690	139620	18352
2_hs4	2	33141266	33141666	2_hs4_ebv_cluster4	NC_007605	151550	171782	5468
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster1	NC_007605	2553	4608	6
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster2	NC_007605	35555	38265	55
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster3	NC_007605	45013	52705	22
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster4	NC_007605	53773	56301	12
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster5	NC_007605	57570	68060	29
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster6	NC_007605	95105	96615	11
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster7	NC_007605	103373	105446	7
7_hs17	7	105741876	105741890	7_hs17_ebv_cluster8	NC_007605	159568	165433	19
HETERO_NBN2 (EBV-immortalized cell line carrying heterozygous c.657_661del5, p.Lys219Asnfs in the *NBN* gene)								
14_hs2	14	99887282	99887286	14_hs2_ebv_cluster1	NC_007605	35906	37100	14
2_hs2	2	33141270	33141666	2_hs2_ebv_cluster1	NC_007605	9	11992	207

2_hs2	2	33141270	33141666	2_hs2_ebv_cluster2	NC_007605	35245	38282	519
2_hs2	2	33141270	33141666	2_hs2_ebv_cluster3	NC_007605	39702	139619	1875
2_hs2	2	33141270	33141666	2_hs2_ebv_cluster4	NC_007605	151592	171771	503
2_hs3	2	154078821	154078825	2_hs3_ebv_cluster1	NC_007605	35934	37234	9
2_hs4	2	223731462	223731474	2_hs4_ebv_cluster1	NC_007605	11975	11992	10
2_hs4	2	223731462	223731474	2_hs4_ebv_cluster2	NC_007605	57327	57902	12
2_hs4	2	223731462	223731474	2_hs4_ebv_cluster3	NC_007605	95587	96249	7
7_hs2	7	105741881	105741887	7_hs2_ebv_cluster1	NC_007605	36064	36759	9
HOMO_NBN2 (EBV-immortalized cell line carrying homozygous c.657_661del5, p.Lys219Asnfs in the *NBN* gene)								
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster1	NC_007605	0	11990	101
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster2	NC_007605	35255	38150	383
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster3	NC_007605	39767	78076	252
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster4	NC_007605	80166	81018	8
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster5	NC_007605	82278	107698	144
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster6	NC_007605	108863	139457	181
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster7	NC_007605	151571	162330	65
14_hs8	14	99887275	99887291	14_hs8_ebv_cluster8	NC_007605	163760	171747	73
2_hs5	2	33141265	33141666	2_hs5_ebv_cluster1	NC_007605	0	11994	2515
2_hs5	2	33141265	33141666	2_hs5_ebv_cluster2	NC_007605	35219	38282	8646
2_hs5	2	33141265	33141666	2_hs5_ebv_cluster3	NC_007605	39691	139624	25765
2_hs5	2	33141265	33141666	2_hs5_ebv_cluster4	NC_007605	151550	171777	8037
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster1	NC_007605	1237	3133	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster10	NC_007605	79966	82499	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster11	NC_007605	91500	92391	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster12	NC_007605	94407	96611	14
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster13	NC_007605	98120	107595	27
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster14	NC_007605	110664	117491	16
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster15	NC_007605	120817	122492	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster16	NC_007605	134705	137099	10
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster17	NC_007605	138887	139463	8
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster18	NC_007605	153541	156227	6

7_hs19	7	105741875	105741896	7_hs19_ebv_cluster19	NC_007605	159512	161324	10
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster2	NC_007605	5065	6455	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster20	NC_007605	168136	171666	18
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster3	NC_007605	11965	11988	7
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster4	NC_007605	35236	37248	124
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster5	NC_007605	45479	49035	10
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster6	NC_007605	50083	55373	21
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster7	NC_007605	56912	63416	32
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster8	NC_007605	69344	72147	8
7_hs19	7	105741875	105741896	7_hs19_ebv_cluster9	NC_007605	73780	74767	6
HETERO_NBN3 (EBV-immortalized cell line carrying heterozygous c.657_661del5, p.Lys219Asnfs in the *NBN* gene)								
14_hs2	14	99887280	99887288	14_hs2_ebv_cluster1	NC_007605	11103	11978	9
14_hs2	14	99887280	99887288	14_hs2_ebv_cluster2	NC_007605	35945	37378	46
14_hs2	14	99887280	99887288	14_hs2_ebv_cluster3	NC_007605	46244	50273	9
14_hs2	14	99887280	99887288	14_hs2_ebv_cluster4	NC_007605	56101	58850	6
14_hs2	14	99887280	99887288	14_hs2_ebv_cluster5	NC_007605	66297	69862	10
2_hs2	2	33141280	33141665	2_hs2_ebv_cluster1	NC_007605	0	11991	480
2_hs2	2	33141280	33141665	2_hs2_ebv_cluster2	NC_007605	35317	38281	1208
2_hs2	2	33141280	33141665	2_hs2_ebv_cluster3	NC_007605	39696	139607	4637
2_hs2	2	33141280	33141665	2_hs2_ebv_cluster4	NC_007605	151577	171749	1486