

**Supplementary Table 5 a:** Genes up-regulated in DLBCL, BL and FL cases (available through GEO Accession Nr. GSE12453) as well as specifically acetylated in B-cell lines (n=65).

A	B	C	D	E	F	G	H
Name	Entrez Gene	Ref Seq	Probe set	p-value (Acetylation)	Ratio (Acetylation)	p-value (Expression)	Fold change (Expression)
HAUS1	115106	NM_138443.2	225297_at	0,015048391	1,328766085	0,001887282	-1,508258874
BCL6	604	NM_138931.1	203140_at	0,048407035	1,485799298	0,000490403	-2,514905972
HMGB1	3146	NM_002128.4	200680_x_at	0,039462022	4,420111639	2,92E-005	-1,001161645
E2F2	1870	NM_004091.2	228361_at	0,048371024	4,628627127	0,029627887	-1,162319303
NCOA3	8202	NM_006534.2	209061_at	0,028186101	4,792742029	0,006683441	-1,073287225
TPD52	7163	NM_001025253.1	201688_s_at	0,045933659	5,093380737	0,001087667	-1,555436334
SWAP70	23075	NM_015055.2	209307_at	0,044585672	5,204263908	0,00333673	-1,784952014
C22orf32	91689	NM_033318.3	225795_at	0,015767892	5,217976675	0,000870204	-1,322923894
BLK	640	NM_001715.2	206255_at	0,04901243	5,344501782	1,62E-005	-2,772621173
ANKRD13A	88455	NM_033121.1	224810_s_at	0,018499552	5,357932709	5,60E-005	-1,63253187
GIT2	9815	NM_014776.2	225558_at	0,019303315	5,404082362	0,002662984	-1,245342296
ARHGDIB	397	NM_001175.4	201288_at	0,03614785	5,61001574	7,53E-005	-1,026055803
SYVN1	84447	NM_032431.2	225090_at	0,036988841	5,614866059	9,21E-007	-1,640095284
CD19	930	NM_001770.4	206398_s_at	0,010658909	5,640830279	4,83E-007	-1,601532534
RABEP2	79874	NM_024816.2	74694_s_at	0,010596179	5,655026189	0,000242718	-1,272300327
CUX1	1523	NM_181552.2	225935_at	0,026945937	5,819027248	0,0224612	-1,18994977
ADD3	120	NM_016824.3	201753_s_at	3,49E-005	5,900376113	0,008716256	-1,307717066
CD27	939	NM_001242.4	206150_at	0,021922508	5,911690757	0,008592848	-1,212472717
BLNK	29760	NM_013314.2	207655_s_at	0,033895025	5,929994088	1,70E-008	-3,501476444
FANCA	2175	NM_000135.2	203805_s_at	1,04E-005	6,008988783	0,002577385	-1,376856113
ST6GAL1	6480	NM_173216.1	201998_at	0,000588366	6,065203933	9,51E-006	-1,57777423
MAST3	23031	NM_015016.1	213045_at	1,17E-005	6,107889749	0,00049807	-1,026045777
NSUN5	55695	NM_148956.1	214100_x_at	2,52E-005	6,175467396	0,001620695	-1,041044512
IL16	3603	NM_004513.4	209827_s_at	1,19E-005	6,187706423	0,000499838	-1,734511716

SYK	6850	NM_003177.3	207540_s_at	5,36E-005	6,230661405	3,94E-006	-1,797864204
PAX5	5079	NM_016734.1	221969_at	0,029708383	6,363309635	0,002652706	-1,581617317
RASAL1	8437	NM_004658.1	219752_at	9,36E-006	6,496023128	0,002000144	-2,198813742
RASGRP2	10235	NM_153819.1	214369_s_at	2,55E-005	6,506038373	0,000581514	-1,632490145
UPF3A	65110	NM_080687.1	206958_s_at	8,21E-006	6,533132053	0,000379242	-1,783832565
COTL1	23406	NM_021149.2	224583_at	1,22E-005	6,64064987	0,014324293	-1,187752842
RASSF2	9770	NM_170774.1	203185_at	1,15E-005	6,654331544	0,018522657	-1,341006892
CD52	1043	NM_001803.2	204661_at	1,18E-005	6,673650028	0,000513823	-1,654266781
TUBA4A	7277	NM_006000.1	212242_at	6,71E-005	6,70825773	1,61E-005	-1,130080806
PRDM2	7799	NM_001007257.1	203057_s_at	0,000101136	6,713006159	0,045853605	-1,201040548
FAM3C	10447	NM_014888.2	201889_at	2,82E-005	6,783962041	0,04050101	-1,216308185
AFF3	3899	NM_002285.2	227198_at	5,92E-006	6,796833428	0,000221845	-1,590836822
LYL1	4066	NM_005583.3	210044_s_at	3,06E-005	6,850724186	1,94E-005	-1,564243272
EBAG9	9166	NM_198120.1	204274_at	2,99E-005	6,896614597	0,000360407	-1,718603888
FOXO1	2308	NM_002015.3	202723_s_at	7,96E-005	6,998136713	0,000525101	-1,326155344
C7orf11	136647	NM_138701.1	225419_at	6,07E-006	7,009809083	0,001464359	-1,072499978
CD72	971	NM_001782.1	215925_s_at	2,02E-005	7,018966078	0,000344921	-2,127080634
ZNF420	147923	NM_144689.3	242761_s_at	1,50E-005	7,107532716	0,002891653	-1,183721014
CCND3	896	NM_001760.2	201700_at	7,08E-006	7,150839107	0,007308564	-1,03153184
NCF1	653361	NM_000265.4	214084_x_at	4,62E-006	7,157304968	8,28E-005	-1,759577477
CD22	933	NM_001771.2	204581_at	5,23E-006	7,169085999	1,57E-006	-1,977863134
FCRLA	84824	NM_032738.3	235372_at	5,22E-006	7,195637338	2,37E-007	-3,914259456
P2RY8	286530	NM_178129.3	229686_at	5,38E-006	7,198714521	0,000477424	-2,094389898
POU2AF1	5450	NM_006235.1	205267_at	5,97E-006	7,207354171	2,34E-008	-3,995747669
PTPN7	5778	NM_080588.1	204852_s_at	4,37E-006	7,214412634	0,001679376	-1,334908586
SYTL1	84958	NM_032872.1	227134_at	3,81E-006	7,340414785	0,000695488	-1,877285596
POLD4	57804	NM_021173.2	202996_at	1,23E-005	7,387312521	2,66E-007	-1,234990601
ALOX5	240	NM_000698.2	204446_s_at	7,75E-006	7,500896546	0,014162729	-2,289264509
LY86	9450	NM_004271.3	205859_at	6,24E-006	7,514687729	0,000535185	-1,744409248
TMC8	147138	NM_152468.3	227353_at	2,83E-005	7,565080753	4,75E-005	-1,245066383
RCSD1	92241	NM_052862.2	225763_at	7,69E-005	7,594177231	4,80E-006	-2,424098472
ELL3	80237	NM_025165.2	219517_at	1,18E-005	7,608274764	1,18E-007	-4,17852666

CYFIP2	26999	NM_001037332.2	215785_s_at	6,72E-006	7,639360576	3,85E-006	-2,016155173
RALGPS2	55103	NM_152663.2	227224_at	1,03E-005	7,720302496	0,000807722	-1,476278454
POU2F2	5452	NM_002698.2	211771_s_at	2,92E-006	7,781056925	2,31E-006	-1,553843976
DTX1	1840	NM_004416.2	227336_at	3,44E-006	7,918165301	3,86E-005	-2,143029622
BACH2	60468	NM_021813.1	221234_s_at	4,45E-006	7,93036795	0,02163757	-1,465320506
PVRIG	79037	NM_024070.3	219812_at	3,47E-006	7,992549392	0,006765991	-1,028224296
CD79B	974	NM_021602.2	205297_s_at	2,55E-006	8,048696043	1,62E-009	-3,935503571
KIAA0746	23231	NM_015187.3	212311_at	0,000129718	8,24040533	0,000311679	-1,975907117
C13orf18	80183	NM_025113.2	219471_at	7,61E-006	8,262873376	7,18E-006	-2,356220886

**Supplementary Table 5b:** Genes up-regulated in microdissected HRS cells of 11 cHL cases (GEO Accession Nr. GSE12453) as well as specifically acetylated in cHL cell lines (n=31).

A	B	C	D	E	F	G	H
Name	Entrez Gene	Ref Seq	Probe set	p-value (Acetylation)	Ratio (Acetylation)	p-value (Expression)	Fold change (Expression)
SEMA4C	54910	NM_017789.4	46665_at	3,66E-006	-8,376854452	1,53E-006	2,135050586
IL6	3569	NM_000600.2	205207_at	1,77E-005	-8,314958127	7,18E-006	2,723989432
BATF3	55509	NM_018664.1	220358_at	5,26E-006	-8,091403371	6,12E-008	4,373484523
CISH	1154	NM_145071.1	223377_x_at	5,75E-005	-7,96206129	0,001202099	1,009579634
CCR7	1236	NM_001838.2	206337_at	3,01E-006	-7,716010702	7,90E-007	3,007505357
ATF3	467	NM_001040619.1	202672_s_at	3,97E-006	-7,640583425	1,92E-005	2,826096643
EHBP1	23301	NM_015252.2	212653_s_at	3,88E-006	-7,560681148	0,014162729	1,25539007
VIM	7431	NM_003380.2	201426_s_at	3,18E-005	-7,368164191	0,00906833	1,338719559
LMNA	4000	NM_170707.2	212086_x_at	1,54E-005	-7,273807378	2,84E-005	1,252172096
AHNAK	79026	NM_024060.2	211986_at	0,000327008	-7,242636179	0,028425232	1,033924496
MYOF	26509	NM_133337.1	201798_s_at	5,10E-006	-7,065936874	0,039612518	1,760843408
GATA3	2625	NM_001002295.1	209604_s_at	0,000140427	-7,044219283	0,032854058	1,155922058
IL1R2	7850	NM_173343.1	205403_at	2,94E-005	-6,793631895	5,26E-008	4,388029996
TRAF1	7185	NM_005658.3	205599_at	0,014083402	-6,792481882	0,009277575	1,310480943
SATB1	6304	NM_002971.2	203408_s_at	1,04E-005	-6,677674843	0,048508522	1,336091619
EMP3	2014	NM_001425.1	203729_at	1,02E-005	-6,652481276	0,000807722	1,214559788
TIGD2	166815	NM_145715.2	229983_at	2,00E-005	-6,602487682	0,028773848	1,124192567
DENND5A	23258	NM_015213.2	212561_at	1,81E-005	-6,454167517	0,001785853	1,514147578
SYTL3	94120	NM_001009991.2	238423_at	1,40E-005	-6,28026593	0,000770171	1,760030982
RHEBL1	121268	NM_144593.1	1553713_a_at	0,000140112	-6,150030992	0,000924758	1,407341534
IL411	259307	NM_152899.1	230966_at	0,009916575	-6,113151792	0,006607337	1,471851186
CCND2	894	NM_001759.2	200951_s_at	0,017081608	-6,060446744	1,92E-005	3,129261405
PARVB	29780	NM_013327.3	37966_at	8,42E-005	-5,976252328	0,003689222	1,255322809
IER3	8870	NM_003897.3	201631_s_at	0,008803634	-5,93008571	2,42E-007	2,236640068

STAT5A	6776	NM_003152.2	203010_at	0,017976406	-5,743352899	6,60E-005	1,60506075
MGST3	4259	NM_004528.2	201403_s_at	0,007008446	-5,687616026	1,11E-008	2,590259673
RYBP	23429	NM_012234.4	201844_s_at	0,033501553	-5,085643545	0,001190153	1,395972657
LGALS1	3956	NM_002305.3	201105_at	7,38E-005	-4,915415555	0,03867369	1,196493913
JUN	3725	NM_002228.3	201464_x_at	0,025071425	-1,35897883	0,000136388	1,594648542
AAK1	22848	NM_014911.3	205434_s_at	0,0319807	-1,301586558	0,000193027	1,860527915
ID2	3398	NM_002166.4	201565_s_at	0,045506577	-0,980314536	0,001912022	2,235924324