

**Supplemental Table 2. Deregulated signaling pathways with statistical significance in three gene expressing cells compared with two gene ex**

A						B					
Up-regulated gene sets in Bcl2/Myc/Ccnd1 (vs Bcl2/Myc/mock)						Down-regulated gene sets in Bcl2/Myc/Ccnd1 (vs Bcl2/Myc/mock)					
N.	NAME	SIZE	NES	NOM p-va	FDR q-val	N.	NAME	SIZE	NES	NOM p-va	FDR q-val
1	REACTOME_SMOOTH_MU	20	2.70302	0	8.09E-04	1	REACTOME_DIABETES_P	283	-7.87257	0	0
2	KEGG_VASCULAR_SMOO	68	2.345861	0	0.0467148	2	KEGG_RIBOSOME	77	-7.83154	0	0
3	KEGG_BASAL_CELL_CAR	31	2.262536	0	0.0633523	3	REACTOME_PEPTIDE_CH	77	-7.43184	0	0
4	BIOCARTA_ALK_PATHWA	26	2.260242	0.001592	0.0481432	4	REACTOME_FORMATION	76	-7.42835	0	0
5	REACTOME_MUSCLE_COI	33	2.254909	0	0.0404621	5	REACTOME_VIRAL_MRNA	77	-7.42451	0	0
6	KEGG_P53_SIGNALING_PA	55	2.176597	0.004354	0.0575507	6	REACTOME_INFLUENZA_I	90	-7.30688	0	0
7	ST_G_ALPHA_I_PATHWAY	24	2.139284	0.001629	0.0666003	7	REACTOME_REGULATION	82	-7.056	0	0
8	REACTOME_DOWNSTREA	170	2.048338	0.002478	0.1123412	8	REACTOME_TRANSLATIC	98	-6.91839	0	0
9	ST_WNT_BETA_CATENIN_I	21	2.007911	0.001658	0.1333935	9	REACTOME_GTP_HYDROI	85	-6.69206	0	0
10	REACTOME_MYOGENESS	21	1.989151	0.003268	0.1347199	10	REACTOME_REGULATION	84	-6.6055	0	0
11	ST_ADRENERGIC	23	1.965443	0.009346	0.1445731	11	REACTOME_INSULIN_SYN	112	-6.29855	0	0
12	KEGG_HEDGEHOG_SIGNA	28	1.948322	0.009302	0.1468862	12	REACTOME_INFLUENZA_I	124	-6.02094	0	0
13	KEGG_WNT_SIGNALING_P	104	1.926384	0.006849	0.1572312	13	REACTOME_GLUCOSE_RE	119	-5.53332	0	0
14	ST_JNK_MAPK_PATHWAY	32	1.917151	0.009449	0.1547062	14	KEGG_PARKINSONS_DISE	90	-5.46247	0	0
15	BIOCARTA_PAR1_PATHW	27	1.899676	0.013636	0.1612384	15	REACTOME_ELECTRON_T	56	-5.4538	0	0
16	ST_GRANULE_CELL_SURV	19	1.894226	0.006656	0.1567078	16	REACTOME_METABOLISM	163	-5.36338	0	0
17	REACTOME_NUCLEAR_RE	27	1.889553	0.007974	0.1518099	17	REACTOME_REGULATION	151	-5.10791	0	0
18	ST_DIFFERENTIATION_PA	30	1.881415	0.005997	0.1507095	18	KEGG_OXIDATIVE_PHOSF	93	-4.90854	0	0
19	KEGG_MELANOGENESIS	59	1.86054	0.008942	0.1613622	19	REACTOME_INTEGRATIO	168	-4.65649	0	0
20	BIOCARTA_ATRBRCA_PA	20	1.826781	0.013072	0.1888601	20	REACTOME_FORMATION	32	-4.24488	0	0
21	KEGG_PATHWAYS_IN_CAN	224	1.822393	0.007101	0.1856495	21	KEGG_HUNTINGTONS_DISE	134	-4.0458	0	0
22	KEGG_SNARE_INTERACTI	25	1.808614	0.011272	0.1914553	22	REACTOME_GENE_EXPRES	306	-4.03922	0	0
23	KEGG_COMPLEMENT_ANI	26	1.780518	0.018462	0.2152449	23	KEGG_PROTEASOME	39	-3.93754	0	0
24	BIOCARTA_FCER1_PATHV	35	1.778052	0.019878	0.210273	24	REACTOME_P53_INDEPEN	41	-3.90965	0	0
25	BIOCARTA_ATM_PATHWA	19	1.774118	0.018779	0.2067502	25	REACTOME_VIF_MEDIATE	44	-3.88943	0	0
26	REACTOME_PLG_GAMMA	24	1.737587	0.033588	0.2442701	26	REACTOME_TRANSLATIC	38	-3.74562	0	0
						27	KEGG_ALZHEIMERS_DISE	122	-3.69632	0	0
						28	REACTOME_M_G1_TRANS	58	-3.63445	0	0
						29	REACTOME_REGULATION	44	-3.61462	0	0
						30	REACTOME_STABILIZATI	44	-3.61323	0	0
						31	KEGG_SYSTEMIC_LUPUS_	43	-3.54474	0	0
						32	REACTOME_SCF_BETA_TI	45	-3.51592	0	0
						33	REACTOME_SYNTHESIS_C	79	-3.32888	0	0
						34	REACTOME_DNA_REPLIC	69	-3.31197	0	0
						35	REACTOME_CDT1_ASSOC	49	-3.30547	0	0
						36	REACTOME_METABOLISM	118	-3.23691	0	0
						37	REACTOME_HIV_INFECTI	163	-3.21153	0	0
						38	REACTOME_SCF_SKP2_MI	48	-3.1907	0	3.41E-05
						39	REACTOME_AUTODEGRA	55	-3.16061	0	6.68E-05

40	REACTOME_RNA_POLYMI	22	-3,12234	0	6,51E-05
41	REACTOME_HOST_INTER	108	-3,12172	0	6,35E-05
42	REACTOME_ORC1_REMO'	59	-3,04853	0	9,18E-05
43	REACTOME_CDC20_PHOS	59	-2,96011	0	8,96E-05
44	REACTOME_REGULATION	66	-2,85144	0	1,16E-04
45	REACTOME_CYCLIN_E_AS	54	-2,81559	0	1,14E-04
46	REACTOME_S_PHASE	92	-2,81213	0	1,11E-04
47	REACTOME_SIGNALING_E	54	-2,7315	0	1,09E-04
48	REACTOME_TRANSCRIPT	43	-2,6676	0	2,46E-04
49	REACTOME_IMMUNOREG	26	-2,60226	0	4,95E-04
50	REACTOME_MRNA_SPLIC	33	-2,59998	0	4,85E-04
51	REACTOME_PREFOLDIN_I	17	-2,59043	0	4,75E-04
52	REACTOME_PACKAGING_	21	-2,57338	0	4,66E-04
53	REACTOME_TELOMERE_M	44	-2,51501	0	6,47E-04
54	REACTOME_CELL_CYCLE	104	-2,50238	0	7,37E-04
55	BIOCARTA_PROTEASOMI	18	-2,44185	0	0,001296
56	KEGG_GLYCOLYSIS_GLU	36	-2,4362	0	0,001369
57	REACTOME_NUCLEOTIDE	48	-2,42505	0	0,0015
58	KEGG_ARGININE_AND_PR	33	-2,40531	0	0,001644
59	KEGG_AMINO_SUGAR_ANI	34	-2,32107	0	0,002858
60	KEGG_PRIMARY_IMMUNO	27	-2,29753	0,002778	0,003357
61	REACTOME_METABLISM_	55	-2,29606	0	0,003325
62	REACTOME_DNA_STRANI	25	-2,28864	0,002747	0,003381
63	REACTOME_CHOLESTER	20	-2,25085	0,002597	0,00404
64	KEGG_DNA_REPLICATION	31	-2,23672	0	0,004429
65	REACTOME_GLUCONEOC	23	-2,21216	0	0,005203
66	REACTOME_ABORTIVE_E	19	-2,20813	0	0,005359
67	REACTOME_APOPTOSIS	108	-2,19292	0	0,005692
68	REACTOME_RNA_POL_IIC	25	-2,18383	0,002703	0,00589
69	REACTOME_CHEMOKINE_	18	-2,17951	0	0,005967
70	REACTOME_FORMATION_	28	-2,17464	0	0,006039
71	REACTOME_TAT_MEDIAT	27	-2,17128	0	0,006067
72	REACTOME_RNA_POLYMI	42	-2,16255	0,003106	0,00635
73	REACTOME_ELONGATIO	100	-2,15463	0,004065	0,006589
74	KEGG_PROPANOATE_ME'	24	-2,13065	0	0,007693
75	REACTOME_GLYCOLYSIS	16	-2,12561	0,010178	0,007846
76	REACTOME_REPAIR_SYN'	15	-2,12353	0	0,007851
77	REACTOME_PURINE_MET	25	-2,11713	0,005618	0,008105
78	REACTOME_MRNA_PROC	29	-2,09343	0,002841	0,009561
79	REACTOME_G1_S_TRANSI	89	-2,09166	0,003497	0,009597
80	REACTOME_FORMATION_	116	-2,05073	0,004	0,012229
81	REACTOME_CYTOSOLIC_	17	-2,04996	0,002494	0,012096
82	REACTOME_MITOTIC_M_M	121	-2,03611	0	0,013189
83	REACTOME_EXTENSION_I	23	-2,02646	0,005747	0,013696

84	REACTOME_HIV1_TRANSI	37	-2.02166	0.006369	0.013955
85	REACTOME_HIV1_TRANSI	36	-2.0211	0.002985	0.013841
86	REACTOME_GLUCOSE_MI	40	-2.0172	0.006431	0.014052
87	KEGG_PYRUVATE_METAE	26	-2.01012	0.007895	0.014334
88	KEGG_PENTOSE_PHOSPH	17	-2.00289	0.007813	0.014769
89	KEGG_PYRIMIDINE_METAI	74	-1.99625	0.01049	0.01511
90	KEGG_ALANINE_ASPARTA	22	-1.98405	0.008219	0.016261
91	KEGG_NUCLEOTIDE_EXCI	42	-1.96216	0.008721	0.018362
92	REACTOME_GLOBAL_GEN	33	-1.95859	0.013699	0.018478
93	KEGG_PURINE_METABOLI	112	-1.94751	0.022831	0.019472
94	REACTOME_METABOLISM	84	-1.94195	0.011583	0.019856
95	REACTOME_PEPTIDE_LIG	46	-1.92764	0.009259	0.021253
96	KEGG_CARDIAC_MUSCLE	42	-1.91566	0.009063	0.022556
97	REACTOME_TRNA_AMINC	23	-1.90954	0.018667	0.023145
98	KEGG_TYROSINE_METAB	21	-1.89079	0.009901	0.025453
99	KEGG_GALACTOSE_META	21	-1.86657	0.012853	0.028524
100	KEGG_SPLICEOSOME	83	-1.85884	0.011494	0.029268
101	KEGG_CITRATE_CYCLE_T	25	-1.85686	0.011173	0.029341
102	REACTOME_STEROID_ME	35	-1.8457	0.011019	0.030893
103	KEGG_PROTEIN_EXPORT	19	-1.81738	0.018868	0.035549
104	REACTOME_MRNA_SPLIC	75	-1.81709	0.015094	0.035275
105	REACTOME_MICRORNA_E	17	-1.80971	0.016867	0.036473
106	KEGG_METABOLISM_OF_)	24	-1.80414	0.016393	0.037222
107	REACTOME_LAGGING_ST	18	-1.78357	0.022613	0.040685
108	KEGG_STEROID_BIOSYNT	15	-1.7462	0.017677	0.048326
109	REACTOME_DNA_REPAIR	87	-1.73981	0.019231	0.049422
110	REACTOME_DUAL_INCISI	27	-1.72592	0.017192	0.052147
111	KEGG_HISTIDINE_METAB	18	-1.71438	0.011268	0.055019
112	KEGG_DRUG_METABOLIS	17	-1.71223	0.024331	0.054972
113	KEGG_MISMATCH_REPAIF	22	-1.7117	0.021448	0.054561
114	REACTOME_PYRUVATE_M	31	-1.70505	0.021622	0.055806
115	KEGG_PEROXISOME	57	-1.68415	0.022654	0.061295
116	REACTOME_TRANSCRIPT	53	-1.67553	0.022364	0.063279
117	REACTOME_RNA_POLYMI	23	-1.6643	0.028278	0.066253
118	KEGG_PATHOGENIC_ESC	32	-1.64845	0.028571	0.071223
119	BIOCARTA_STRESS_PATI	25	-1.64836	0.027397	0.070648
120	BIOCARTA_CDC42RAC_P	16	-1.64328	0.044776	0.071828
121	REACTOME_RNA_POLYMI	19	-1.62729	0.04401	0.076686
122	KEGG_DRUG_METABOLIS	26	-1.60604	0.042105	0.083926
123	KEGG_GLUTATHIONE_ME	36	-1.55757	0.040123	0.102806
124	REACTOME_CELL_CYCLE	225	-1.55404	0.049451	0.10362
125	KEGG_LYSOSOME	97	-1.54283	0.046154	0.107923



expressing cells.

C						D					E					
Up-regulated gene sets in Ccnd1/Myc/Bcl2 (vs Ccnd1/Myc/mock)						Down-regulated gene sets in Ccnd1/Myc/Bcl2 (vs Ccnd1/Myc/mock)					Up-regulated gene sets in Bcl2/Ccnd1/Myc (vs Bcl2/Ccnd1/Myc/mock)					
N.	NAME	SIZE	NES	VOM p-va	FDR q-va	N.	NAME	SIZE	NES	VOM p-va	FDR q-va	N.	NAME	SIZE	NES	VOM p-va
1	REACTOME_PEPTIDE_CH	77	4.26041	0	0	1	REACTOME_MITOTIC_M_M	121	-3.49538	0	0	1	REACTOME_GTP_HYDROI	85	6.401018	0
2	REACTOME_VIRAL_MRNA	77	4.205576	0	0	2	REACTOME_CELL_CYCLE	225	-3.44301	0	0	2	REACTOME_PEPTIDE_CH	77	6.371155	0
3	KEGG_RIBOSOME	77	4.186861	0	0	3	REACTOME_HIV_INFECTI	163	-3.31485	0	0	3	REACTOME_TRANSLATIC	98	6.328231	0
4	REACTOME_FORMATION	76	4.080672	0	0	4	REACTOME_REGULATION	44	-3.24226	0	0	4	REACTOME_FORMATION	76	6.315779	0
5	REACTOME_REGULATION	82	4.066824	0	0	5	REACTOME_SCF_BETA_TI	45	-3.21632	0	0	5	KEGG_RIBOSOME	77	6.244883	0
6	REACTOME_REGULATION	84	4.041245	0	0	6	REACTOME_DNA_REPLIC	69	-3.08453	0	0	6	REACTOME_VIRAL_MRNA	77	6.125177	0
7	REACTOME_INFLUENZA_	90	3.6457	0	0	7	REACTOME_METABOLISM	118	-3.05478	0	0	7	REACTOME_REGULATION	82	5.929093	0
8	REACTOME_GTP_HYDROI	85	3.645358	0	0	8	REACTOME_M_G1_TRANS	58	-3.04916	0	0	8	REACTOME_INFLUENZA_	90	5.859477	0
9	REACTOME_TRANSLATIC	98	3.415872	0	0	9	REACTOME_CYCLIN_E_AS	54	-3.03049	0	0	9	REACTOME_REGULATION	84	5.858192	0
10	REACTOME_CLASS_A1_RI	70	3.351361	0	0	10	REACTOME_FORMATION	116	-3.01654	0	0	10	REACTOME_INFLUENZA_I	124	5.358944	0
11	REACTOME_CHEMOKINE_	18	3.153558	0	0	11	REACTOME_STABILIZATI	44	-3.00783	0	0	11	REACTOME_METABOLISM	163	5.04881	0
12	REACTOME_INSULIN_SYN	112	3.014166	0	0	12	REACTOME_VIF_MEDIATE	44	-2.98959	0	0	12	REACTOME_GENE_EXPRES	306	4.964419	0
13	REACTOME_GPCR_LIGAN	113	2.972766	0	0	13	REACTOME_SCF_SKP2_MI	48	-2.96941	0	0	13	REACTOME_INSULIN_SYN	112	4.947639	0
14	KEGG_CYTOKINE_CYTOKI	110	2.938311	0	6.07E-05	14	REACTOME_G1_S_TRANSI	89	-2.96501	0	0	14	REACTOME_TRANSLATIC	38	4.670561	0
15	REACTOME_INFLUENZA_I	124	2.828334	0	2.16E-04	15	REACTOME_ELONGATION	100	-2.93853	0	0	15	REACTOME_FORMATION	32	4.583359	0
16	REACTOME_G_ALPHA_I_S	59	2.75281	0	2.52E-04	16	KEGG_HUNTINGTONS_DISE	134	-2.93107	0	0	16	REACTOME_PROCESSING	104	4.080956	0
17	REACTOME_DOWNSTREA	170	2.558307	0	9.47E-04	17	REACTOME_P53_INDEPEN	41	-2.92851	0	0	17	REACTOME_DIABETES_P	283	3.965232	0
18	REACTOME_PEPTIDE_LIG	46	2.548208	0	8.94E-04	18	KEGG_PROTEASOME	39	-2.92041	0	0	18	REACTOME_FORMATION	116	3.961522	0
19	ST_T_CELL_SIGNAL_TRAN	37	2.547911	0	8.47E-04	19	KEGG_SPLICEOSOME	83	-2.88156	0	8.86E-05	19	REACTOME_MRNA_SPLIC	75	3.832346	0
20	REACTOME_METABOLISM	163	2.507767	0	0.001048	20	REACTOME_S_PHASE	92	-2.87243	0	8.42E-05	20	REACTOME_ELONGATION	100	3.824213	0
21	KEGG_CHEMOKINE_SIGNA	119	2.471618	0	0.001652	21	REACTOME_REGULATION	66	-2.84754	0	8.02E-05	21	KEGG_PARKINSONS_DISE	90	3.82121	0
22	KEGG_ECM_RECEPTOR_IN	56	2.439276	0	0.002158	22	REACTOME_CDT1_ASSOC	49	-2.82847	0	1.42E-04	22	KEGG_SPLICEOSOME	83	3.575074	0
23	KEGG_INTESTINAL_IMMUN	16	2.386873	0	0.003227	23	REACTOME_TRANSCRIPT	53	-2.82753	0	1.36E-04	23	REACTOME_METABOLISM	78	3.548506	0
24	REACTOME_FORMATION	32	2.365693	0	0.003652	24	REACTOME_HIV1_TRANSI	37	-2.82412	0	1.30E-04	24	REACTOME_RNA_POLYMI	82	3.491687	0
25	REACTOME_IMMUNOREG	26	2.196689	0.002833	0.013291	25	REACTOME_ORC1_REMO	59	-2.78983	0	1.25E-04	25	REACTOME_M_G1_TRANS	58	3.432364	0
26	KEGG_LYSOSOME	97	2.142276	0.002384	0.019512	26	REACTOME_RNA_POLYMI	82	-2.77418	0	1.77E-04	26	REACTOME_DNA_REPLIC	69	3.424127	0
27	REACTOME_SIGNALING_I	207	2.104541	0	0.024007	27	REACTOME_LATE_PHASE	82	-2.75521	0	1.71E-04	27	REACTOME_ELECTRON_T	56	3.405576	0
28	KEGG_HEMATOPOIETIC_C	42	2.097455	0.004043	0.02415	28	REACTOME_SIGNALING_E	54	-2.72975	0	1.64E-04	28	REACTOME_LATE_PHASE	82	3.366263	0
29	KEGG_SNARE_INTERACTI	25	2.089864	0.005908	0.024751	29	REACTOME_SYNTHESIS_C	79	-2.72858	0	1.59E-04	29	REACTOME_HIV_INFECTI	163	3.364557	0
30	REACTOME_TRANSLATIC	38	2.072965	0.00554	0.027006	30	REACTOME_CDC20_PHOS	59	-2.70249	0	1.53E-04	30	REACTOME_HIV_LIFE_CYC	93	3.339772	0
31	KEGG_PRIMARY_IMMUNO	27	2.014896	0.001418	0.041124	31	REACTOME_FORMATION	28	-2.68127	0	1.49E-04	31	REACTOME_CELL_CYCLE	104	3.305671	0
32	KEGG_P53_SIGNALING_PA	55	2.012783	0.001289	0.040567	32	REACTOME_CHOLESTER	20	-2.64713	0	1.44E-04	32	KEGG_OXIDATIVE_PHOSF	93	3.290317	0
33	KEGG_B_CELL_RECEPT	66	1.988557	0.0075	0.046411	33	REACTOME_CELL_CYCLE	104	-2.63698	0	2.24E-04	33	REACTOME_GLUCOSE_RE	119	3.272733	0
34	REACTOME_NCAM1_INTE	25	1.977756	0.004304	0.048362	34	REACTOME_HIV1_TRANSI	36	-2.62963	0	2.18E-04	34	REACTOME_G1_S_TRANSI	89	3.21023	0
35	ST_ADRENERGIC	23	1.967601	0.004431	0.049486	35	REACTOME_HIV_LIFE_CYC	93	-2.61389	0	2.12E-04	35	REACTOME_TRANSPORT	48	3.206451	0
36	KEGG_CALCIIUM_SIGNALII	84	1.932625	0.006143	0.059775	36	REACTOME_GLUCOSE_RE	119	-2.54039	0	6.30E-04	36	REACTOME_S_PHASE	92	3.198769	0
37	KEGG_JAK_STAT_SIGNAL	84	1.900565	0.009569	0.071063	37	REACTOME_AUTODEGRA	55	-2.5116	0	9.25E-04	37	REACTOME_SNRNP_ASSE	40	3.168277	0
38	SIG_PIP3_SIGNALING_IN_E	30	1.867852	0.001425	0.084598	38	REACTOME_PROCESSING	104	-2.50188	0	9.82E-04	38	REACTOME_TRANSCRIPT	141	3.149976	0
39	KEGG_NATURAL_KILLER_I	70	1.837805	0.00894	0.098317	39	REACTOME_INTEGRATIO	168	-2.46715	0	0.001387	39	REACTOME_ACTIVATION	34	3.142952	0

40	KEGG_SMALL_CELL_LUNC	70	1,833355	0,02033	0,098135	40	REACTOME_TAT_MEDIAT	27	-2,39675	0,003115	0,002253	40	REACTOME_G2_M_CHECK	39	3,087822	0
41	KEGG_COMPLEMENT_ANI	26	1,801456	0,018414	0,115134	41	REACTOME_TRANSCRIPT	141	-2,37123	0	0,002556	41	REACTOME_DNA_REPAIR	87	3,085064	0
42	REACTOME_G_ALPHA_S_5	52	1,794539	0,009174	0,117029	42	REACTOME_MRNA_SPLIC	33	-2,37001	0	0,002533	42	REACTOME_MRNA_3_END	29	3,081327	0
43	REACTOME_FORMATION	16	1,771109	0,016897	0,131598	43	REACTOME_SNRNP_ASSE	40	-2,31847	0	0,003681	43	REACTOME_HOST_INTER	108	3,062033	0
44	KEGG_T_CELL_RECEPTOF	81	1,76716	0,018182	0,131304	44	REACTOME_SYNTHESIS_I	15	-2,26956	0	0,005108	44	REACTOME_SYNTHESIS_C	79	3,048526	0
45	REACTOME_COLLAGEN_M	19	1,764197	0,029369	0,130573	45	REACTOME_REGULATION	151	-2,24909	0	0,006093	45	REACTOME_CDT1_ASSOC	49	2,999573	0
46	REACTOME_MEMBRANE_I	60	1,743131	0,026178	0,144562	46	REACTOME_HOST_INTER	108	-2,22494	0	0,006806	46	KEGG_AMINOACYL_TRNA	23	2,982755	0
47	KEGG_FOCAL_ADHESION	148	1,738269	0,022753	0,145013	47	REACTOME_RNA_POL_ILC	25	-2,17071	0,006079	0,009688	47	REACTOME_INTEGRATIO	168	2,981335	0
48	REACTOME_CLATHRIN_D	46	1,732865	0,023192	0,145961	48	REACTOME_ABORTIVE_EI	19	-2,15901	0	0,010185	48	REACTOME_MRNA_SPLIC	33	2,962981	0
49	KEGG_VASCULAR_SMOO	68	1,720424	0,02625	0,152933	49	REACTOME_MRNA_SPLIC	75	-2,15406	0	0,010245	49	REACTOME_ORC1_REMO	59	2,958716	0
50	REACTOME_PLG_GAMMA	24	1,712496	0,02489	0,156465	50	REACTOME_STEROID_ME	35	-2,05415	0,00678	0,017772	50	REACTOME_TRNA_AMINC	23	2,922658	0
51	REACTOME_INTRINSIC_P	25	1,70153	0,031579	0,16318	51	REACTOME_DUAL_INCISI	27	-2,04208	0,003322	0,018484	51	REACTOME_TRANSCRIPT	53	2,895272	0
52	REACTOME_FORMATION	128	1,701474	0,025761	0,160058	52	REACTOME_ELECTRON_T	56	-2,02458	0,004049	0,019906	52	REACTOME_MITOTIC_M_M	121	2,858983	0
53	REACTOME_HEMOSTASIS	187	1,672277	0,028729	0,184387	53	KEGG_STEROID_BIOSYNT	15	-1,98895	0,013699	0,023383	53	REACTOME_CYCLIN_E_AS	54	2,842236	0
54	ST_GA13_PATHWAY	29	1,669204	0,033382	0,183587	54	REACTOME_PREFOLDIN_I	17	-1,91134	0,014451	0,035557	54	KEGG_HUNTINGTONS_DISE	134	2,842137	0
55	ST_GAQ_PATHWAY	21	1,667999	0,030129	0,181424	55	REACTOME_METABLISM_	55	-1,86188	0,004425	0,045215	55	REACTOME_REGULATION	151	2,802714	0
56	KEGG_BLADDER_CANCEF	35	1,667695	0,024064	0,17837	56	KEGG_ARGININE_AND_PRI	33	-1,86102	0,020576	0,044652	56	REACTOME_CYTOSOLIC_	17	2,798657	0
57	KEGG_NEUROACTIVE_LIG	55	1,599137	0,03562	0,248776	57	KEGG_ALZHEIMERS_DISE	122	-1,84824	0,013986	0,047296	57	KEGG_PYRIMIDINE_METAI	74	2,797206	0
						58	REACTOME_METABLISM	78	-1,82294	0,015075	0,053281	58	REACTOME_ACTIVATION	25	2,795289	0
						59	REACTOME_MITOTIC_PRC	59	-1,81387	0,013158	0,054796	59	REACTOME_TRANSCRIPT	43	2,788406	0
						60	REACTOME_NUCLEOTIDE	48	-1,79821	0,007605	0,058635	60	REACTOME_TRANSPORT	29	2,774085	0
						61	REACTOME_DUAL_INCISI	20	-1,77917	0,017751	0,063485	61	REACTOME_STABILIZATI	44	2,763063	0
						62	REACTOME_RNA_POLYMI	42	-1,72658	0,010753	0,081307	62	REACTOME_NUCLEOTIDE	48	2,758771	0
						63	REACTOME_TRANSCRIPT	43	-1,70704	0,015686	0,088736	63	REACTOME_REV_MEDIAT	29	2,75371	0
						64	REACTOME_G2_M_TRANS	51	-1,69677	0,019011	0,091838	64	REACTOME_VPR_MEDIAT	29	2,736745	0
						65	KEGG_GLUTATHIONE_ME	36	-1,69623	0,017544	0,090677	65	REACTOME_NUCLEAR_IM	28	2,731346	0
						66	REACTOME_MICRORNA_E	17	-1,69415	0,030387	0,090219	66	REACTOME_HIV1_TRANSI	36	2,711682	0
						67	REACTOME_CYTOSOLIC_	17	-1,69409	0,027624	0,088872	67	REACTOME_GLUCOSE_TF	31	2,678986	0
						68	REACTOME_FURTHER_PL	18	-1,69013	0,034188	0,089239	68	REACTOME_TRANSPORT	27	2,676807	0
						69	KEGG_BASAL_TRANSCRIF	27	-1,65605	0,041935	0,10366	69	REACTOME_METABLISM_	55	2,655763	0
						70	REACTOME_RNA_POLYMI	19	-1,64355	0,027607	0,108415	70	REACTOME_METABLISM	38	2,652249	0
						71	REACTOME_PACKAGING_	21	-1,6293	0,029499	0,114342	71	REACTOME_VIF_MEDIATE	44	2,652248	0
						72	BIOCARTA_MPR_PATHWA	24	-1,58783	0,037543	0,136833	72	REACTOME_SCF_SKP2_MI	48	2,645025	0
						73	KEGG_PARKINSONS_DISE	90	-1,57769	0,034682	0,141834	73	REACTOME_METABLISM	118	2,644697	0
						74	REACTOME_CENTROSON	40	-1,56118	0,05	0,147203	74	REACTOME_P53_INDEPEN	41	2,630371	0
						75	REACTOME_RNA_POLYMI	23	-1,55532	0,036923	0,149505	75	REACTOME_DUAL_INCISI	27	2,630281	0
						76	REACTOME_TELOMERE_M	44	-1,54393	0,044898	0,155274	76	BIOCARTA_PROTEASOMI	18	2,630254	0
						77	REACTOME_APOPTOSIS	108	-1,504	0,049383	0,181101	77	REACTOME_RNA_POLYMI	19	2,62447	0
						78	KEGG_PURINE_METABOLI	112	-1,45851	0,041096	0,216779	78	KEGG_PURINE_METABOLI	112	2,622228	0
												79	KEGG_RNA_DEGRADATIO	44	2,620433	0
												80	KEGG_RNA_POLYMERASE	24	2,620014	0
												81	KEGG_PROTEASOME	39	2,616999	0
												82	REACTOME_NEP_NS2_INT	27	2,611966	0
												83	REACTOME_HIV1_TRANSI	37	2,606168	0

84	KEGG_CITRATE_CYCLE_T	25	2,600383	0
85	KEGG_ALZHEIMERS_DISE	122	2,597819	0
86	REACTOME_RNA_POLYMI	21	2,575922	0
87	REACTOME_REGULATION	25	2,571646	0
88	REACTOME_PREFOLDINJ	17	2,569403	0
89	REACTOME_REGULATION	44	2,561559	0
90	REACTOME_FORMATION	28	2,468645	0
91	REACTOME_RNA_POLYMI	19	2,447415	0
92	REACTOME_CELL_CYCLE	225	2,447313	0
93	KEGG_NUCLEOTIDE_EXCI	42	2,447034	0
94	REACTOME_RNA_POL_II_C	25	2,442514	0
95	REACTOME_SCF_BETA_TI	45	2,44221	0
96	REACTOME_MRNA_PROC	29	2,436066	0
97	REACTOME_PYRUVATE_M	31	2,417986	0
98	BIOCARTA_MCM_PATHWA	17	2,412176	0
99	REACTOME_CDC20_PHOS	59	2,407226	0
100	REACTOME_AUTODEGRA	55	2,387383	0
101	KEGG_DNA_REPLICATION	31	2,373436	0
102	REACTOME_CITRIC_ACID	18	2,36259	0
103	REACTOME_RNA_POLYMI	16	2,34091	0
104	KEGG_ARGININE_AND_PR	33	2,335247	0
105	REACTOME_MICRORNA_E	17	2,331816	0
106	KEGG_MISMATCH_REPAIF	22	2,318787	0,001332
107	REACTOME_REGULATION	66	2,299403	0
108	REACTOME_SIGNALING_E	54	2,291837	0
109	REACTOME_TAT_MEDIAT	27	2,289291	0
110	REACTOME_GLOBAL_GEN	33	2,275477	0,001205
111	REACTOME_PURINE_MET	25	2,192655	0
112	REACTOME_RNA_POLYMI	24	2,173027	0
113	REACTOME_DNA_STRANI	25	2,156441	0
114	REACTOME_ABORTIVE_EI	19	2,137441	0
115	KEGG_CARDIAC_MUSCLE	42	2,131174	0,001155
116	REACTOME_MITOTIC_PRO	59	2,117828	0,001101
117	KEGG_CYSTEINE_AND_ME	22	2,095981	0,00267
118	REACTOME_METABOLISM	29	2,09202	0
119	REACTOME_RNA_POLYMI	73	2,080178	0,001092
120	KEGG_BASAL_TRANSCRI	27	2,068428	0,001229
121	REACTOME_RNA_POLYMI	18	2,05154	0,00266
122	BIOCARTA_ATRBRCA_PA	20	2,046465	0,002597
123	REACTOME_METABOLISM	84	2,038781	0,003191
124	REACTOME_RNA_POLYMI	23	2,024909	0,003861
125	REACTOME_DEADENYLA	19	2,022056	0,006684
126	REACTOME_DUAL_INCISI	20	2,021293	0,001326
127	KEGG_VALINE_LEUCINE_A	37	2,016952	0,001188

128	KEGG_CELL_CYCLE	111	1.975081	0
129	REACTOME_BRANCHED_C	15	1.973339	0.006793
130	KEGG_HOMOLOGOUS_RE	25	1.955366	0.003745
131	KEGG_SELENOAMINO_AC	15	1.952636	0.006614
132	REACTOME_E2F_MEDIAT	25	1.93147	0.001289
133	REACTOME_SYNTHESIS_J	15	1.864847	0.003953
134	REACTOME_RNA_POLYMI	28	1.858322	0.012547
135	KEGG_PROTEIN_EXPORT	19	1.824315	0.010296
136	KEGG_PYRUVATE_METAE	26	1.807092	0.011152
137	KEGG_BASE_EXCISION_RI	32	1.77409	0.020681
138	REACTOME_APOPTOSIS	108	1.768334	0.007292
139	REACTOME_BASE_EXCISI	17	1.739139	0.015789
140	BIOCARTA_MTOR_PATHW	21	1.719311	0.024204
141	REACTOME_LAGGING_ST	18	1.703743	0.023904
142	KEGG_ALANINE_ASPART/	22	1.702675	0.028097
143	REACTOME_TRANSMEME	120	1.689998	0.022564
144	REACTOME_REPAIR_SYN'	15	1.660388	0.036635
145	REACTOME_RNA_POLYMI	42	1.656173	0.023364
146	REACTOME_EXTENSION_I	23	1.647242	0.031056
147	REACTOME_DOUBLE_STF	18	1.639069	0.042328
148	REACTOME_E2F_TRANSC	15	1.628422	0.046897
149	KEGG_HEMATOPOIETIC_C	42	1.614469	0.033449
150	KEGG_PROPANOATE_ME'	24	1.594988	0.049322
151	REACTOME_CHOLESTER	20	1.576464	0.048493
152	KEGG_UBIQUITIN_MEDIAT	108	1.549749	0.044118



F						
mock)	Down-regulated gene sets in Bcl2/Ccnd1/Myc (vs Bcl2/Ccnd1/mock)					
FDR q-va	N.	NAME	SIZE	NES	LOM p-va	FDR q-va
0	1	KEGG_CYTOKINE_CYTOKI	110	-5.02107	0	0
0	2	KEGG_FOCAL_ADHESION	148	-3.29658	0	0
0	3	REACTOME_PLATELET_A	114	-2.85082	0	0.001612
0	4	KEGG_JAK_STAT_SIGNAL	84	-2.84076	0	0.001209
0	5	KEGG_ECM_RECEPTOR_IN	56	-2.68262	0	0.002507
0	6	REACTOME_CHEMOKINE_	18	-2.66086	0	0.002978
0	7	REACTOME_NCAM1_INTE	25	-2.5733	0	0.003283
0	8	REACTOME_REGULATION	15	-2.52803	0	0.004127
0	9	REACTOME_SIGNALING_E	54	-2.5108	0	0.00425
0	10	BIOCARTA_IL7_PATHWAY	15	-2.48007	0	0.004086
0	11	REACTOME_FORMATION_	128	-2.40735	0	0.006885
0	12	REACTOME_AXON_GUIDA	115	-2.2927	0	0.016478
0	13	KEGG_ADHERENS_JUNCT	55	-2.27884	0	0.016397
0	14	REACTOME_INTEGRIN_CE	53	-2.2409	0.008403	0.018772
0	15	KEGG_REGULATION_OF_A	146	-2.19776	0	0.022618
0	16	REACTOME_SIGNALING_E	27	-2.16792	0	0.024387
0	17	BIOCARTA_TCR_PATHWA	38	-2.11535	0	0.032182
0	18	REACTOME_NCAM_SIGNA	42	-2.06424	0.006579	0.040271
0	19	KEGG_EPITHELIAL_CELL_	52	-2.04206	0.007874	0.043899
0	20	KEGG_TGF_BETA_SIGNAL	57	-2.03246	0	0.044221
0	21	BIOCARTA_PARI_PATHW	27	-2.02223	0.009479	0.044609
0	22	BIOCARTA_IL2RB_PATHW	35	-2.01697	0	0.044101
0	23	REACTOME_HEMOSTASIS	187	-1.98879	0	0.049737
0	24	REACTOME_PLATELET_D	58	-1.96067	0	0.056068
0	25	KEGG_COMPLEMENT_ANI	26	-1.95666	0.009346	0.05434
0	26	KEGG_PRIMARY_IMMUNO	27	-1.95074	0	0.053407
0	27	REACTOME_SMOOTH_MU	20	-1.93272	0.00431	0.056617
0	28	BIOCARTA_PDGF_PATHW	27	-1.93225	0.022599	0.054688
0	29	REACTOME_PLATELET_A	45	-1.92725	0	0.054345
0	30	ST_TUMOR_NECROSIS_FA	27	-1.91646	0.005025	0.056554
0	31	ST_ADRENERGIC	23	-1.91244	0.004926	0.055615
0	32	REACTOME_SIGNALING_E	44	-1.90715	0.018018	0.055159
0	33	BIOCARTA_CXCR4_PATHI	18	-1.86129	0.018182	0.067931
0	34	BIOCARTA_TID_PATHWA\	15	-1.85353	0.022727	0.069193
0	35	REACTOME_G_ALPHA_Q_S	55	-1.85038	0.009259	0.068343
0	36	BIOCARTA_IL2_PATHWAY	19	-1.84997	0.012552	0.066445
0	37	BIOCARTA_GSK3_PATHW	26	-1.82114	0.005155	0.07733
0	38	REACTOME_REGULATION	40	-1.81432	0.006579	0.07806
0	39	BIOCARTA_MYOSIN_PATF	22	-1.81219	0.019048	0.077412

0	40	BIOCARTA_EDG1_PATHW	21	-1,7904	0,02765	0,086749
0	41	BIOCARTA_ECM_PATHWA	21	-1,78989	0,017937	0,084768
0	42	REACTOME_TOLL_RECEP	70	-1,78554	0,025641	0,084718
0	43	BIOCARTA_MET_PATHWA	34	-1,77194	0,012821	0,089838
0	44	REACTOME_SEMAPHORI	52	-1,73775	0,017699	0,104005
0	45	BIOCARTA_MAPK_PATHW	77	-1,73759	0,014085	0,101744
0	46	KEGG_AXON_GUIDANCE	91	-1,73232	0	0,101241
0	47	REACTOME_INNATE_IMMI	78	-1,72117	0,020833	0,10421
0	48	REACTOME_CELL_JUNCT	40	-1,71952	0,029851	0,103102
0	49	REACTOME_CELL_SURFA	68	-1,71951	0	0,100998
0	50	REACTOME_GENERATION	18	-1,71828	0,018727	0,099445
0	51	ST_JNK_MAPK_PATHWAY	32	-1,7059	0,032895	0,10321
0	52	KEGG_MAPK_SIGNALING_	178	-1,70534	0	0,101598
0	53	REACTOME_NEF_MEDIAT	17	-1,69897	0,02521	0,102456
0	54	REACTOME_CLATHRIN_D	46	-1,68795	0,035211	0,106186
0	55	BIOCARTA_NTH1_PATHWA	21	-1,67963	0,039823	0,108429
0	56	REACTOME_DOWN_STRE	32	-1,67614	0,02	0,108129
0	57	KEGG_LEUKOCYTE_TRAN	68	-1,67607	0	0,106323
0	58	KEGG_LEISHMANIA_INFEC	37	-1,6576	0,024691	0,114085
0	59	BIOCARTA_FCER1_PATHW	35	-1,64955	0,044586	0,11789
0	60	ST_INTERLEUKIN_4_PATH	22	-1,64862	0,013158	0,116703
0	61	BIOCARTA_BCR_PATHWA	30	-1,64426	0,029586	0,117621
0	62	KEGG_MELANOGENESIS	59	-1,64234	0,039604	0,117003
0	63	KEGG_BASAL_CELL_CARCI	31	-1,64024	0,038462	0,115893
0	64	BIOCARTA_GH_PATHWAY	20	-1,62575	0,031818	0,121881
0	65	REACTOME_G_ALPHA_12	39	-1,62305	0,032	0,121541
1,04E-05	66	REACTOME_PEPTIDE_LIG	46	-1,62187	0,015038	0,120735
1,02E-05	67	BIOCARTA_DEATH_PATHW	28	-1,61752	0,018868	0,121344
1,00E-05	68	BIOCARTA_PYK2_PATHWA	24	-1,61078	0,031414	0,123003
9,90E-06	69	BIOCARTA_RAS_PATHWA	20	-1,60768	0,047414	0,12289
9,76E-06	70	KEGG_NOD_LIKE_RECEPT	34	-1,59654	0,044944	0,127293
9,62E-06	71	REACTOME_MEMBRANE_I	60	-1,58599	0,031915	0,129943
9,49E-06	72	KEGG_ENDOCYTOSIS	118	-1,58548	0,03125	0,128549
9,36E-06	73	BIOCARTA_CDC42RAC_P	16	-1,58377	0,049242	0,127777
9,23E-06	74	ST_INTEGRIN_SIGNALING	65	-1,56922	0,031915	0,134496
9,11E-06	75	REACTOME_GPCR_LIGAN	113	-1,56721	0,035714	0,133688
8,99E-06	76	REACTOME_GOLGI_ASSO	41	-1,56625	0,037879	0,132584
8,87E-06	77	REACTOME_TCR_SIGNALI	42	-1,5486	0,046154	0,138879
8,76E-06	78	BIOCARTA_STRESS_PATI	25	-1,5338	0,031915	0,146055
8,65E-06	79	KEGG_SPHINGOLIPID_ME	26	-1,51035	0,026738	0,153748
8,54E-06	80	REACTOME_SIGNALING_I	207	-1,50791	0	0,153742
8,44E-06	81	BIOCARTA_P38MAPK_PA	35	-1,5006	0,032258	0,155213
8,33E-06	82	REACTOME_FORMATION_	16	-1,46368	0,04878	0,175691
8,23E-06	83	KEGG_PATHWAYS_IN_CAN	224	-1,32873	0	0,233532

8,13E-06  
1,60E-05  
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