Supplementary Material

Network and Computational Drug Repurposing Analysis for c-Myc Inhibition in Burkitt Lymphoma

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Supplementary Tables

Table S1. In network analysis, expression levels (log2 fold change) for each cell line regarding genes that showed down-regulation patterns (JQ1-treated *vs.* untreated and c-Myc knock-down *vs.* shControl) during c-Myc inhibition relative to control in at least two cell lines.

Down-regulation genes			
Gene	**Daudi**	**ST486**	**Raji**
CDK4	-0129	-0.033	-03.331
FGFR1	-0.021	-0.128	-0.252
GRB2	-0.029	-0.013	-0.022
MAP2K1	-0.009	-0.045	-0.035
MAPK1	-0.010	-0.028	0.053
MAPK3	NA	-0.073	-0.695
HRAS	NA	-0.051	-0.126
ROCK2	NA	-0.023	-0.157
AKT1	NA	-0.008	-0.224
AKT2	NA	-0.005	-0.104
KRAS	-0.003	NA	-0.188
MYLK3	-0.116	-0.023	NA
CBLC	-1.381	-0.114	NA
ARHGEF6	-0.044	NA	-0650
CRLF2	NA	-0.001	-0.140
RASGRP2	-0.137	NA	-0.389

CBL	NA	-0.122	-0.143
STMN1	-0.092	NA	-0.449
ELK1	NA	-0.044	-0.148

Table S2. In network analysis, expression levels (log2 fold change) for each cell line regarding genes that showed up-regulation patterns (JQ1-treated *vs.* untreated and c-Myc knock-down *vs.* shControl) during c-Myc inhibition relative to control in at least two cell lines.

Up-regulation genes			
Gene	**Daudi**	**ST486**	**Raji**
PIK3CB	0.090	0.008	0.053
JAK1	0.107	-0.042	0.488
AKT3	0.452	0.018	-0.079
TYK2	0.233	0.024	0.069
SOS1	0.062	0.010	0.156
MYL12B	0.036	NA	0.310
FGFR2	NA	0.037	0.117
STAT2	0.138	0.097	NA
TPR	NA	0.008	0.087
CACNA1H	0.366	NA	0.155
RASGRP3	NA	0.068	0.169
CCND1	0.738	0.060	NA
CACNG5	NA	0.137	0.033
STAT1	NA	0.048	0.482
SOCS7	NA	0.008	0.055
PIK3CA	NA	0.018	0.442
PIAS3	NA	0.015	0.093
FGF11	0.256	0.034	NA
PIP5K1C	NA	0.025	0.129
RRAS2	0.010	NA	0.136

Table S3. Based on the network analysis results through PATHOME-Drug, drug information related to genes in MAPK signaling pathway that contains many genes with consistent expression patterns relative to control (JQ1-treated *vs.* untreated and c-Myc knock-down *vs.* shControl).

Gene	Drug
ARAF	Adenosine Triphosphate
BRAF	Dabrafenib
	Regorafenib
	Sorafenib
	Vemurafenib
CCND1	Arsenic Trioxide
EGFR	Afatinib
	Cetuximab
	Erlotinib
	Gefitinib
	Lapatinib
	Lidocaine
	Panitumumab
	Trastuzumab
	Vandetanib
FGF4	Pentosan Polysulfate
FGFR1	Palifermin
	Ponatinib
	Regorafenib
	Sorafenib
FGFR2	Palifermin
	Ponatinib
	Regorafenib
	Thalidomide
FOS	Nadroparin
	Pseudoephedrine
GRB2	Pegademase Bovine
IGF1R	Insulin Glargine
	Insulin Lispro
	Insulin Regular
	Mecasermin
	Porcine Insulin
MAP2K1	Bosutinib
	Trametinib
MAPK1	Arsenic Trioxide
	Isoprenaline
MAPK3	Sulindac
	Vorinostat
PDGFRB	Becaplermin
	Dasatinib
	Imatinib
	Pazopanib
	Regorafenib
	Sorafenib
	Sunitinib
RAF1	Dabrafenib
	Regorafenib
	Sorafenib