NUP214-ABL1-mediated cell proliferation in T-cell acute lymphoblastic leukemia is dependent on the LCK kinase and various interacting proteins

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SUPPLEMENTARY INFORMATION FOR:

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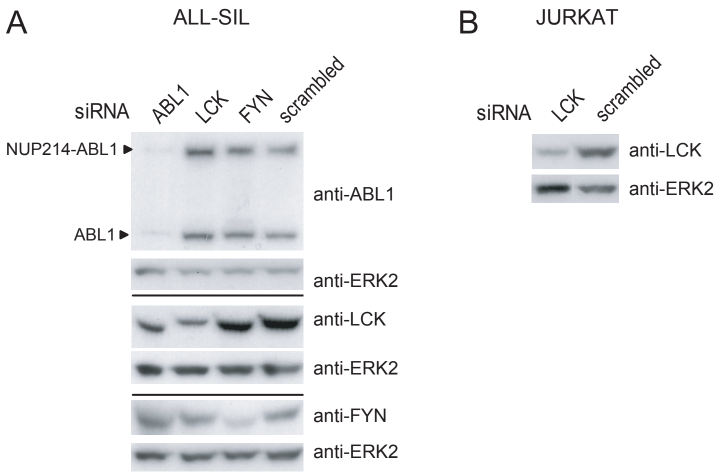
This .pdf document includes:

Supplementary Figure 1-4
Supplementary table 1

The following supplementary file is available as a separate .xls file:

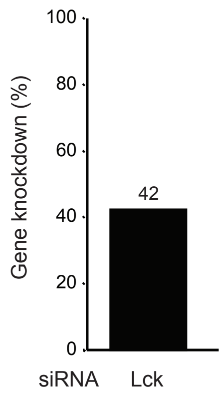
Supplementary table 2

Supplementary Figure 1



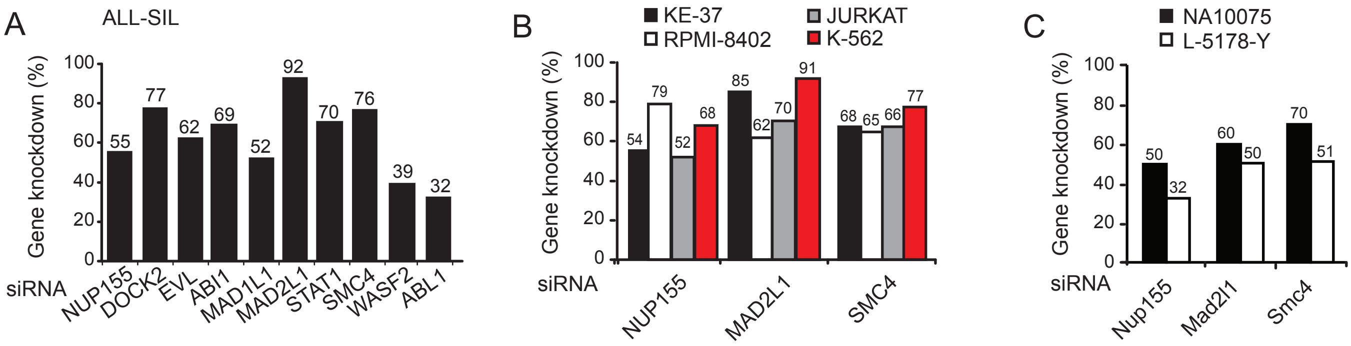
Suppl. Figure 1. siRNA knock-down levels in human T-ALL cells.
Western blot analysis of ALL-SIL (**A**) and JURKAT (**B**) cells treated with indicated siRNAs. The western blots were probed with the antibodies indicated at the right side of each blot.

Supplementary Figure 2



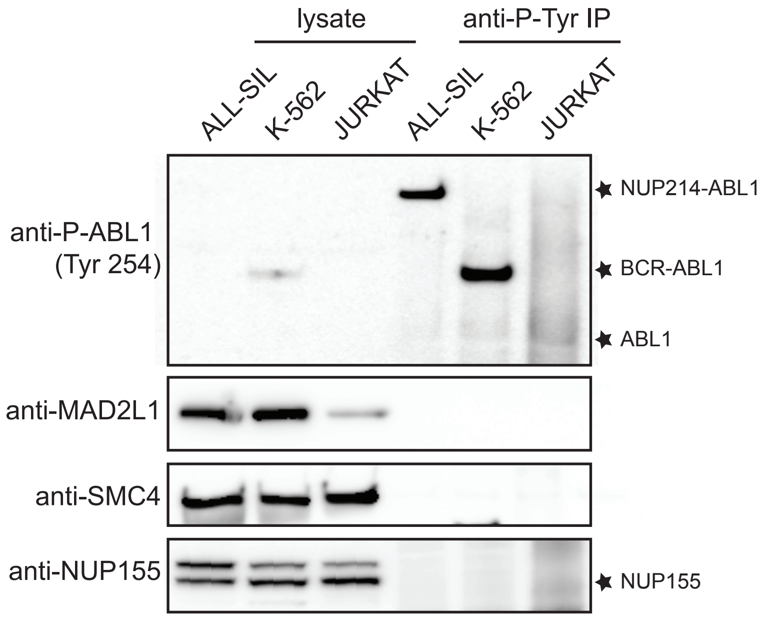
Suppl. Figure 2. siRNA knock-down levels of Lck in mouse T-ALL cells.
Lck knock-down levels were measured by qRT-PCR in mouse L-5178-Y cells treated with control scrambled siRNA, or Lck siRNA. Indicated levels are relative to scrambled control siRNA treated cells (0% knock-down).

Supplementary Figure 3



Suppl. Figure 3. siRNA knock-down levels in human and mouse T-ALL cells.
Knock-down levels of indicated genes were measured by qRT-PCR in cells treated with the correponding siRNAs. (**A**) ALL-SIL cells. (**B**) KE-37, JURKAT, RPMI-8402 and K-562 cells. (**C**) NA10075 and L-5178-Y cells. Indicated levels are relative to scrambled control siRNA treated cells (0% knock-down).

Supplementary Figure 4



Suppl. Figure 4. No detectable tyrosine phosphorylation of MAD2L1, SMC4 and NUP155 .
Immunoprecipitation (IP) using a pan-phospho-tyrosine (anti-P-Tyr) antibody on ALL-SIL, K562 and JURKAT cell lysates pulled down phosphorylated NUP214-ABL1 (in ALL-SIL) and BCR-ABL1 (in K-562) as detected on the western blot with the anti-phospho-ABL1 (Tyr 245) antibody. NUP214-ABL1 interaction partners MAD2L1, SMC4 and NUP155 were not detectable in the IP samples indicating these proteins may not be phosphorylated.

Supplementary table 1. siRNA sequences used in this study

Target Gene	Species	Type	Sequence
ABL1	Human	Invitrogen Stealth	GGAAUGGUGUGAAGCCCAAACCAAA
LCK	Human	Invitrogen Stealth	GCAUUCAUUGAAGAGCGGAAUUAUA
FYN	Human	Invitrogen Stealth	CCCUGUACGGGAGGUUCACAAUCAA
NUP155	Human	Invitrogen Stealth	CCGAUGGUGAAUUUCUUCAUGAAUU
DOCK2	Human	Invitrogen Stealth	CGACAUGAUGCUGUGUGAAUAUCAA
EVL	Human	Invitrogen Stealth	GCAGCAGCGUCAGGAAUCUCUAGAA
ABI1	Human	Invitrogen Stealth	ACUGGGACGGAAUACUCCUUAUAAA
MAD1L1	Human	Invitrogen Stealth	GAAGACCUUUCCAGAUUCGUGGUUG
MAD2L1	Human	Invitrogen Stealth	GCCACUGUUGGAAGUUUCUUGUUCA
STAT1	Human	Invitrogen Stealth	GCAAGCGUAAUCUUCAGGAUAAUUU
SMC4	Human	Invitrogen Stealth	CAGGGUGAAGUUGAACAAAUUGCUA
WASF2	Human	Invitrogen Stealth	CCCAUCUUUCCCACCUCACCCUGAU
Lck	Mouse	IDT Screening DsiRNA	GUAAUUCUGUUCUUCGAUGAACGCCAU
Mad2L1	Mouse	Ambion Silencer Select	UUGUAAAUGAGCGUAGACGga
Nup155	Mouse	Ambion Silencer Select	AUUCGAAGAAAAGUAAAUGCaa
Smc4	Mouse	Ambion Silencer Select	UGCUGUAUUAUGUCGACUGag
Scrambled	Human	Invitrogen Stealth	Available on request: #12935100
Scrambled	Mouse	IDT	CGUUAAUCGCGUAUAAUACGCGUat
Scrambled	Mouse	Ambion Silencer Select	Available on request #4390847