



Supplementary Figure 1 LEDGF/p75 depletion increases the silent reservoir.



Supplementary Figure 2 LEDGIN mediated inhibition of single round lentiviral transduction.



a)										
	(SupT1)	LEDGIN (CX014442, μΜ			M)					
		DMSO	0.7	1.5	3	6	12	25	50	LEDGF KD
	uniCono inout	***	***	***	***					
Genes	uniGene_inout	***	***	***	***	***	***			
	depend width	**								
0	general.width					**				
Gene	etart diet									
boundaries	boundary diet									
	oncoDist 50kh									
	dnasel 1M	***	***	**						
DNasa	dnasel 100k	***	**							
Divase	dnasel 10k									
siles	dnasel 1k									
1	cna dens 1M	***	***							
	cna dens 100k									
CnC islands	cna dens 10k	**		***	***	**				
CpG Islanus	cng 5k	**		***	***	**				
	cng 1k									
	ref 1M	***	***							
	ref 100k	***	***							
Gene	ref 10k	***	***	***	***					
density	dens 1M	***	***							
ucrisity	dens 100k									
	dens.50k									
	dens.10k									
l.	high.ex.1M	***	**							
	high.ex.100k									
Expression	high.ex.50k									
intensity	high.ex.10k									
interiory	low.ex.1M	***	**							
	low.ex.100k									
	low.ex.50k									
ļ	low.ex.10k									
	gc5000000	***	***	**						
	gc1000000	***	***							
	gc500000	***	**							
GC	gc50000				**	**				
content	gc25000			***	***	**				
	gc10000		**	***	***	***				
	gc2000	***	***	***	***	***				
	gc500	***	***	***	***	***				
	gc100	**	*	***	**	**				
I	gc50	**	*	**	***	**				
	♯ sites	3312	2451	2278	2485	3365	884	604	418	2526
		Depleted (compare	ed to MR	C)	(Color Ke	ey	(co	mpared	Enriched to MRC) ────Þ
	C	.0	0.2		0.4		0.6		0.8	1.0

(a)



Supplementary Figure 3 LEDGIN inhibition of the LEDGF/p75-IN interaction retargets lentiviral integration.







0

-1

1

4

-3

9

7 8

6

-6

-5 -4

-8 -7

Supplementary Figure 6. LTR substrings.

[LTR-END]	
Primer bin	dina site	3' pro	ocessing site
5' AGTCAGTGT	GGAAAA	TCTCTAGCA	GT 3'
AGTCAGTGTC			
LTR substring	3	LTR substring 1	
\subseteq			
TG1	GGAAAA	ТСТ	
	LTR substrin	ig 2	



Supplementary Table 1 LEDGIN inhibition of the LEDGF/p75-IN interaction retargets lentiviral integration.

DataSet	# Sites	% in RefSeq gene
DMSO	1259	70.37
CX05045 1x IC ₅₀	2693	69.18
CX05045 5x IC ₅₀	791	61.95 ***

Supplementary Table 2 Percentage of imperfect LTR – chromosome junctions.

_	DataSet	% Imperfect LTR-Chromosome junctions
	DMSO	1.25
ç	0.78125	1.32
LEDGIN (CX014442, µN	1.5625	1.51
	3.125	1.68
	6.25	1.37
	12.5	0.65
	25	1.86
	50	2.58

Supplementary Table 3 Integration orientation

_	DataSet	% Integrations in Refseq genes having an opposite orientation				
LEDGIN (CX014442, µM) 	DMSO	46.21	-			
	0.78125	47.52	*			
	1.5625	49.34	*			
	3.125	49.83	*			
	6.25	49.43	*			
	12.5	51.76	**			
	25	49.71	*			
	50	56.70	***			