

Table W1. Cdc7 Expression Level and *TP53* Gene Status in the 57 Cell Lines from the NCI-60 Set (Independent Measurements).

Panel Name	Cell Name	Cdc7 Band Intensity*	<i>TP53</i> Gene Status
Central nervous system cancer	SNB-19 [†]	-	m
	SNB-75	++	m
	U251 [†]	-	m
	SF-268	+	m
	SF-295	++	m
Colon cancer	SF-539	+	m
	HT29	-	m
	HCC-2998	+	m
	HCT-116	++	wt
	SW-620	++	m
	COLO 205	+	m
	HCT-15	+++	m
Non-small cell lung cancer	KM12	++++	m
	NCI-H23	+++	m
	NCI-H226	-	wt
	NCI-H322M	+	m
	NCI-H460	-	wt
	NCI-H522	+++	m
	A549/ATCC	-	wt
	HOP-62	-	m
	HOP-92	++++	m
	EKVX	-	m
Leukemia	RPMI-8226	+	m
	K-562	+++	m
	CCRF-CEM	++	m
	HL-60(TB)	-	m
	MOLT-4	++++	m
	SR	+	wt
Melanoma	MALME-3M	+	wt
	SK-MEL-2	++	m
	SK-MEL-5	+	wt
	SK-MEL-28	-	m
	UACC-62	-	wt
	UACC-257	-	wt
	M14 [‡]	-	m
	MDA-MB-435 [‡]	++	m
Kidney cancer	UO-31	-	wt
	SN12C	++	m
	A498	-	wt
	CAKI-1	-	wt
	ACHN	+	wt
	786-0	+	m
	TK-10	+	m
Ovary cancer	OVCAR-3	+++	m
	OVCAR-4	++	m
	OVCAR-5	-	wt
	OVCAR-8 [§]	++++	m
	IGROV1	++	m
Prostate cancer	SK-OV-3	+	m
	DU-145	++++	m
Breast cancer	PC-3	++++	m
	T-47D	-	m
	MCF7	+	wt
	NCI/ADR-RES [§]	++	m
	BT-549	-	m
	HS 578T	-	m
	MDA-MB-231/ATCC	+	m

*Cdc7 protein expression level was scored from the second set of measurements as follows: “-” indicates no Cdc7 expression; “+,” low Cdc7 expression; “≥+,” Cdc7 overexpression.

[†]Indicate cell lines that were shown to be derived from the same tumor.

[‡]Indicate cell lines that were shown to be derived from the same tumor.

[§]Indicate cell lines that were shown to be derived from the same tumor.

m, indicates mutant; *wt*, wild type.

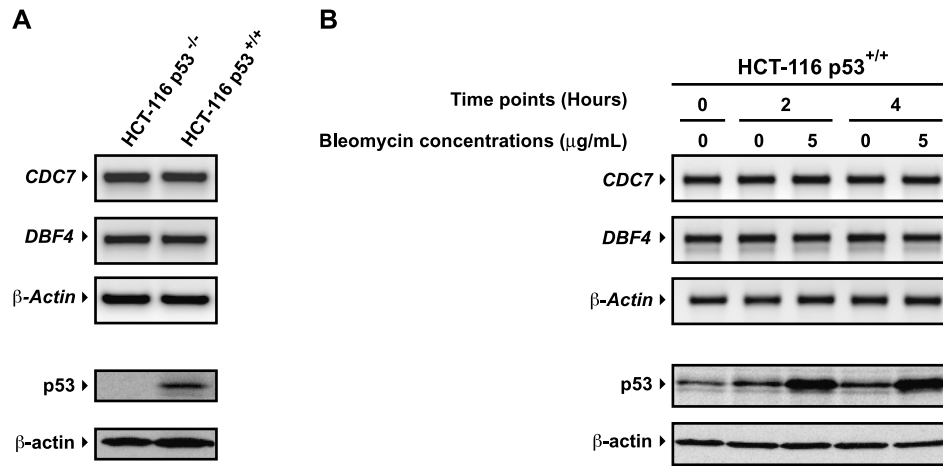


Figure W1. *CDC7* and *DBF4* mRNA levels after p53 induction. (A) Comparison of the *CDC7* and *DBF4* mRNA levels in two HCT-116 cell lines with a different *TP53* status ($-/-$ or $+/+$). *CDC7*, *DBF4*, and β -actin mRNA were reverse-transcribed and amplified as described in the Supplementary Materials and Methods section. p53 immunoblot is also shown for each cell line. (B) Comparison of the *CDC7* and *DBF4* mRNA levels in HCT-116 $p53^{+/+}$ cells after exposure to bleomycin (5 μ g/ml) at 0, 2, and 4 hours of treatment. p53 immunoblot is shown to confirm its induction after bleomycin treatment.

Table W2. Cdc7 Immunohistochemical Staining for Breast, Colon, and Lung Primary Tumors.

Tumor Origins	Sample Numbers	No Cdc7 Detection (-)	Low Cdc7 Detection (+)	Cdc7 Overexpression ($\geq++$)
Breast	20	0	5	15
Colon	10	0	2	8
Lung	5	3	0	2
Total	35 (100%)	3 (9%)	7 (20%)	25 (71%)

Cdc7 protein expression level was scored from the immunohistochemical staining as follows: “-” indicates no Cdc7 staining (= no Cdc7 expression); “+,” low Cdc7 staining (= low Cdc7 expression); “ $\geq++$,” intense Cdc7 staining (= Cdc7 overexpression).

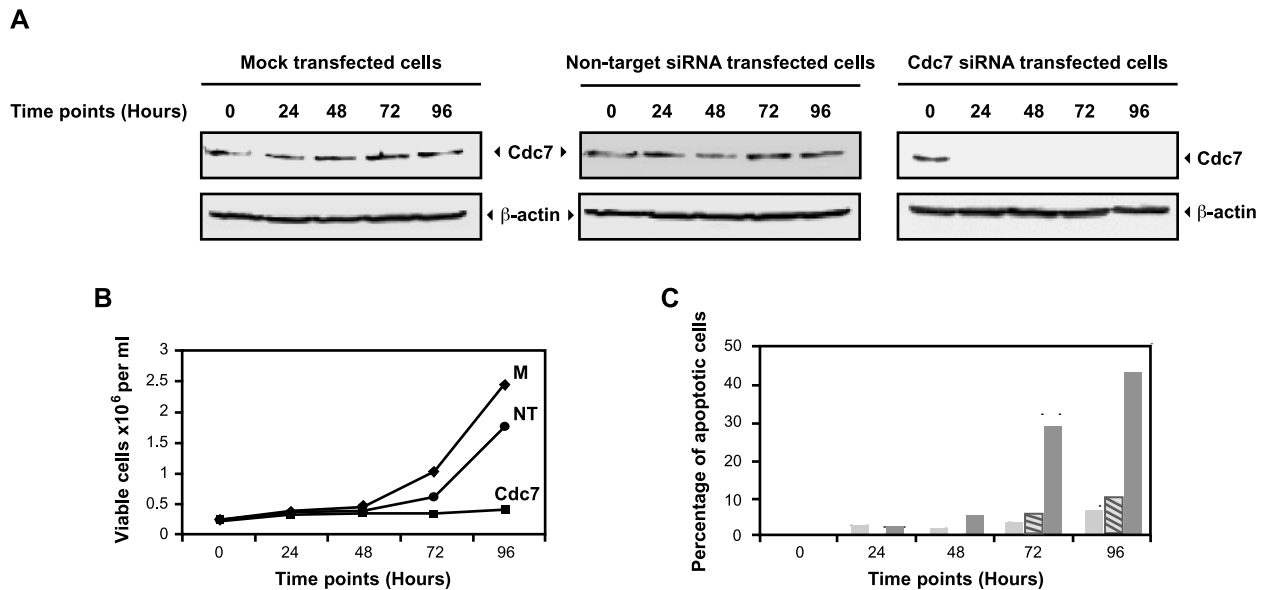


Figure W2. Comparison of mock, nontarget siRNA, and Cdc7 siRNA transfections on cell growth and apoptosis induction in HeLa cells. (A) Cdc7 immunoblots following the different transfections at 0, 24, 48, 72, and 96 hours after transfection. Ten micrograms of total protein was separated on 10% SDS-PAGE. Equal loading was confirmed by probing with a β -actin-specific antibody. (B) Graph of the cell growth after transfection at 0, 24, 48, 72, and 96 hours (*M* indicates mock; *NT*, nontarget siRNA; *Cdc7*, Cdc7 siRNA). (C) Percentage of TUNEL-positive cells for the mock (light gray bars), the nontarget siRNA (striped bars), and the Cdc7 siRNA (dark gray bars) transfected cells at 0, 24, 48, 72, and 96 hours after transfection.