Patient numbers	Diagnosis	Sample Type	Tumor Cells % of lymphocytes	Patient Age, yrs	White Blood Count, per uL	Lymphocytes %	Neutrophils %	Metaphase %	Blasts %	Monocytes %	Growth Factor Information
1	MCL	AS	97	74	213,000	99	1	0	0	0	None
2[§]	MCL	PB	80	54	79,000	75	21	0	0	4	None
3[§]	MCL	PB	80	54	53,000	77	22	0	0	1	None
4*	MCL	PB	0	53	58,000	1	86	7	1	1	Neupogen
5	MCL	AS	90	75	67,700	94	6	0	0	0	None

Table S1. MCL patient characteristics.

[§]Samples 2 and 3 are from the same patient but obtained on different days.

*This patient had stage IV disease but was in remission when the blood samples were collected. Therefore, this sample served as normal PBMCs.

AS, apheresis sample; PB, peripheral blood.

	Primary Antibody Names	Company Information		Primary Antibody Names	Company Information
1	Pim-1 (clone 12H8)	Santa Cruz Biotechnology, Santa Cruz, CA	**10**	Total Bad	Cell Signaling Technology
2	Pim-2	Sigmal-Aldrich, St. Louis, MO	**11**	Phospho-Bad (Ser112)	Cell Signaling Technology
3	Pim-3	Abgent, San Diego, CA	**12**	Total 4E-BP1	Santa Cruz Biotechnology
4	GAPDH	Cell SignalingTechnology, Beverly, MA	**13**	Phospho-4E-BP1 (Thr37/46)	Cell Signaling Technology
5	PARP	BD Biosciences, Franklin Lakes, NJ	**14**	Mcl-1	Santa Cruz Biotechnology
6	Total c-Myc (clone C33)	Santa Cruz Biotechnology	**15**	Bcl-2	Dako, Carpinteria, CA
7	Phospho-c-Myc (Ser62)	Abcam, Cambridge, MA	**16**	Bcl-X_L	BD Transduction Laboratories, Lexington, KY
8	Total Histone H3	Cell Signaling Technology	**17**	XIAP	BD Transduction Laboratories
9	Phospho-Histone H3 (Ser10)	Millipore, Billeria, MA	**18**	Cyclin D1	Santa Cruz Biotechnology

Table S2. Primary antibodies used in immunoblot analyses and their sources.

MCL samples, number positive for kinase/number analyzed		
Pim-1	**Pm-2**	**Pim-3**
11/12	**11/12**	**11/12**

Table S3. Reactivities for Pim-1, Pim-2 and Pim-3 detected in MCL patient tissue array.

Immunohistochemical staining performed in 12 MCL patient samples and data presented as positive for number positive for kinase/total number analyzed.

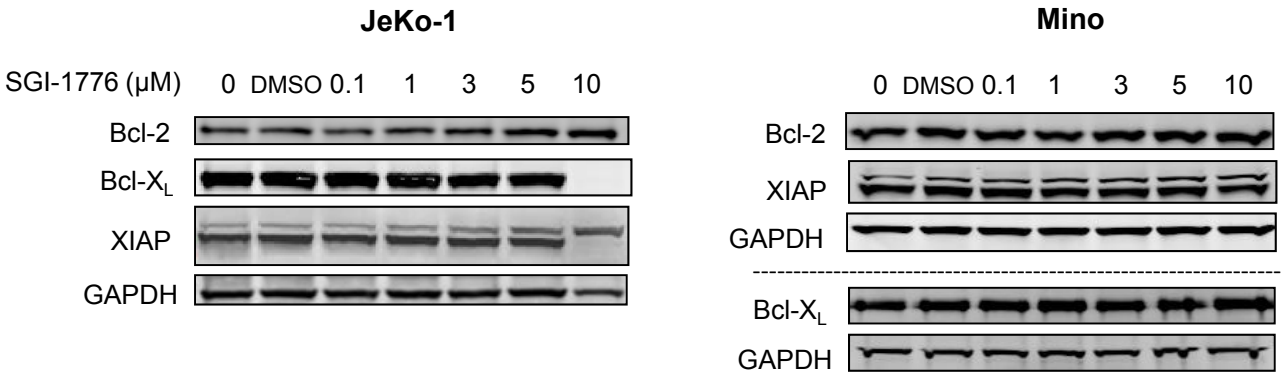

Figure S1. Effects of SGI-1776 on anti-apoptotic proteins in JeKo-1 and Mino cells. Cells were incubated with indicated concentrations of SGI-1776 for 24 hr, and immunoblot analyses for Bcl-2, Bcl-X_L, and XIAP were performed.

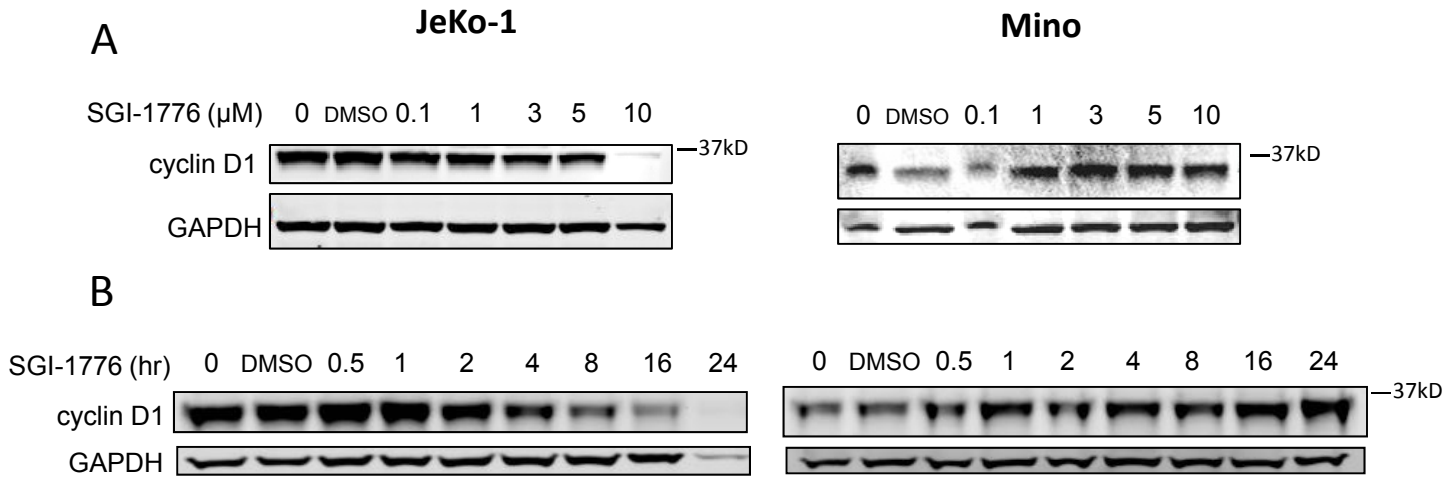

Figure S2. Effects of SGI-1776 on cyclin D1 protein expression in JeKo-1 and Mino cells.
Cells were incubated with the indicated concentrations for 24 hr (A), or time-points with 10 μM SGI-1776 (B), and immunoblot analyses for cyclin D1 were performed in both sets of experiments.

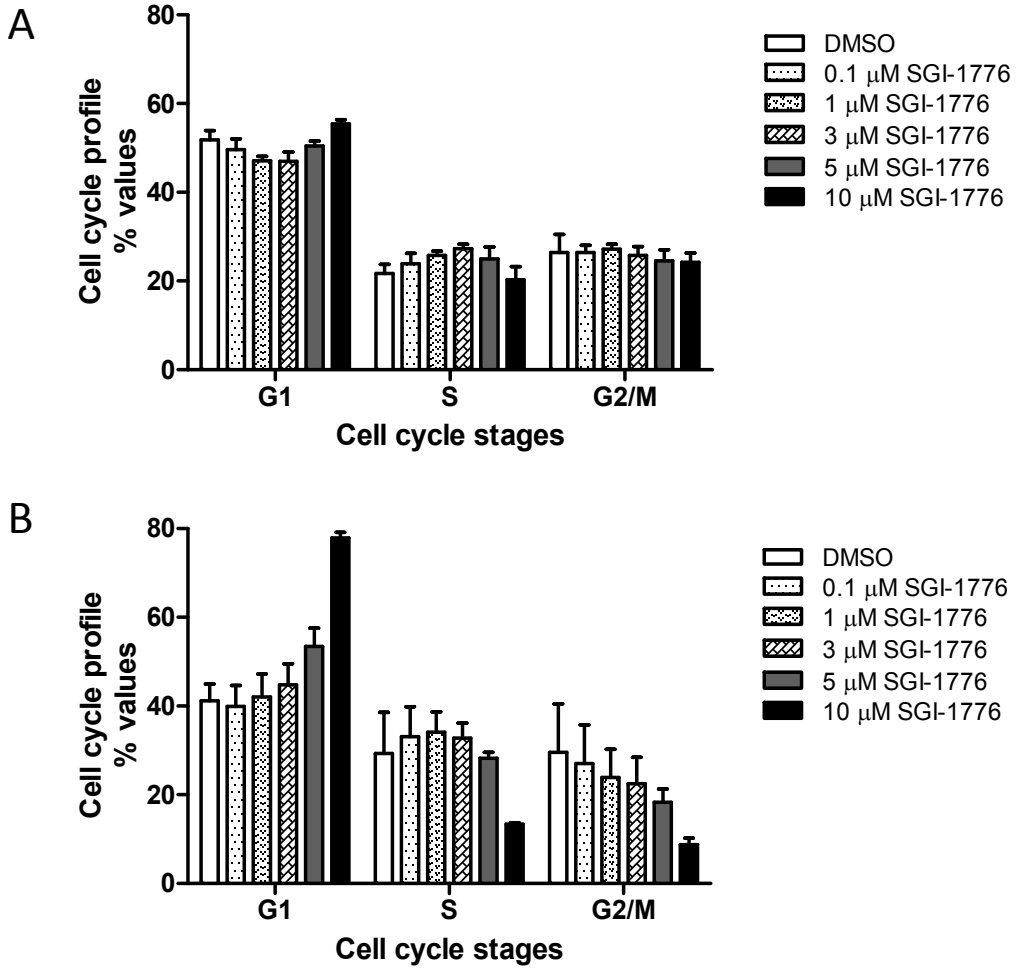

Figure S3. Effects of SGI-1776 on cell cycle profiles in JeKo-1 and Mino cells.
Jeko-1 (A) and Mino (B) cells were treated with indicated concentrations of SGI-1776 for 24 hr, stained with propidium iodide and analyzed for cell cycle distribution.

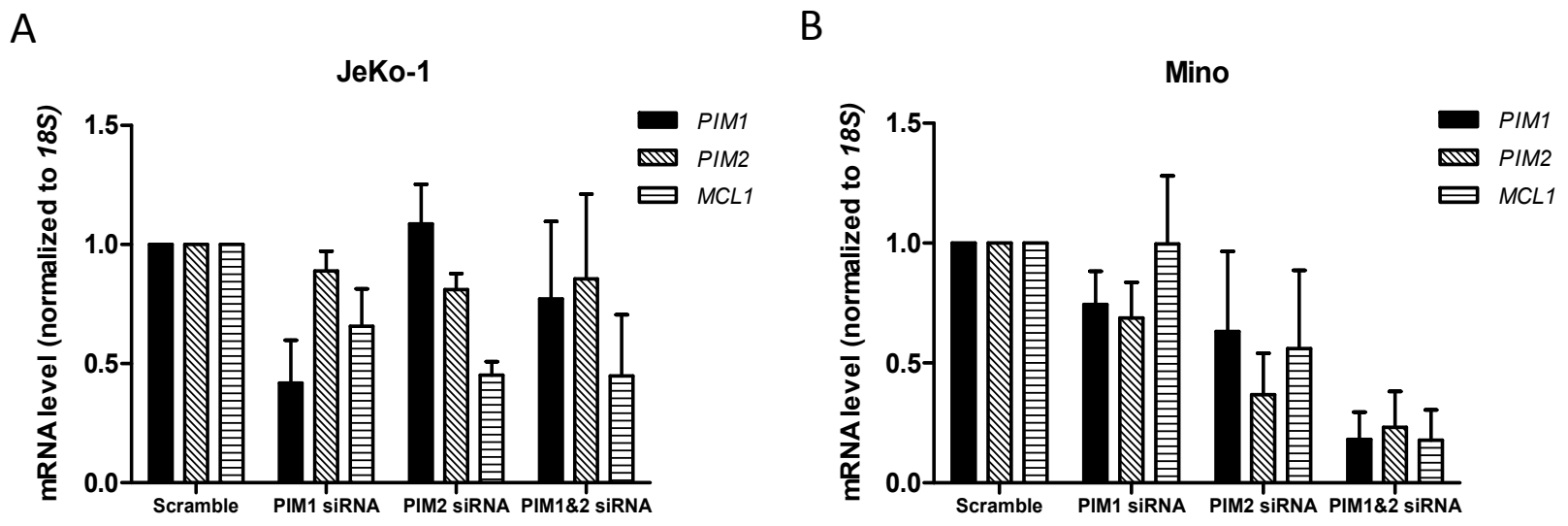

Figure S4. Effects of *PIM1* and *PIM2* siRNA treatments on *PIM1*, *PIM2* and *MCL1* mRNA in JeKo-1 and Mino cells.

Jeko-1 (A) and Mino (B) cells were treated with indicated siRNAs for 48hr, the expression levels of *PIM1*, *PIM2* and *MCL1* mRNA was measured using RT-PCR.