

Table S2. ARMS primers for the *BCL2* *MCL1*, and *Survivin* genes mutation

Primer sequence			Product size	Annealing tempt
<i>BCL2</i> -938 (rs2279115 C>A)				
<i>Bcl2</i> -FO		5'-CCGGCTCCTTCATCGTCTCC-3'	300bp	58 °C
<i>Bcl2</i> -RO		5'-CCCAGGAGAGAGACAGGGGAAAT-3'		
<i>Bcl2</i> -FI	(A allele)	5'-AATAAAACCCCTCCCCACACCT-3'	220bp	
<i>Bcl2</i> -RI	(C allele)	5'-CCCTTCTCGGCAATTTACACGC-3'	121bp	
<i>MCL1</i> (rs9803935 G>T)				
<i>MCL1</i> Fo		5'-TGACTAACACAGGGGTTGAAGGAAGAGG-3'	276 bp	65°C
<i>MCL1</i> Ro		5'-GCACCAAAGACTATGGAACAGAGATGGG-3'		
<i>MCL1</i> FI	(G allele)	5'-GGCATAGTTGGGGACTTGTGGTTATTCTG-3'	190 bp	
<i>MCL1</i> RI	(T allele)	5'-AACATTGGACTGAGAGTAGAGAGCTGCGA-3'	144 bp	
<i>Survivin</i> -141 (rs17882312 C>G)				
Sur F1	(C allele)	5-ACTACAACTCCCGGCACACCCC-3	360 bp	60°C
Sur F2	(G allele)	5-ACTACAACTCCCGGCACACCCG-3		
Sur R		5-TTGTACCCCCGAGGCCAGTCA-3		
<i>Survivin</i> -31 (rs9904341 G>C)				
Sur F1	(G allele)	5-ATTAACCGCCAGATTTGAATCGCG-3	357bp	60°C
Sur F2	(C allele)	5-ATTAACCGCCAGATTTGAATCGCC-3		
Sur R		5-ACAAAGGCCTCGATGGGGACAAA-3		

Fo-outer forward primer: FI-inner forward primer

Ro-outer reverse primer: RI-outer reverse primer

Table S2. Whole exome sequencing of *BCL2* gene in lymphoma cases

#	Variant	c-DNA_CHG	AA_CHG
1.	FRAMESHIFT-DEL	c.245del	p. Ala82GlyfsTer14
2.	MISSENSE	c.239C>G	p. Ala80Gly
3.	FRAMESHIFT-DEL	c.234del	p. Gly79AlafsTer17
4.	FRAMESHIFT-INS	c.233_234insG	p. Gly79ArgfsTer74
5.	FRAMESHIFT-DEL	c.511del	p. Asp171ThrfsTer7
6.	MISSENSE	c.149C>T	p. Ser50Phe
7.	FRAMESHIFT-DEL	c.124del	p. Ala42ProfsTer54
8.	FRAMESHIFT-DEL	c.110_113del	p. Ala37GlyfsTer58
9.	MISSENSE	c.520G>T	p. Ala174Ser
10.	MISSENSE	c.167C>T	p. Thr56Met
11.	FRAMESHIFT-DEL	c.698del	p. Gly233ValfsTer25
12.	FRAMESHIFT-DEL	c.119del	p. Pro40ArgfsTer56
13.	MISSENSE	c.347C>T	p. Ser116Phe
14.	SILENT	c.231C>T	p. Ala77(=)
15.	MISSENSE	c.125C>T	p. Ala42Val
16.	FRAMESHIFT-DEL	c.508del	p. Val170TrpfsTer8
17.	FRAMESHIFT-DEL	c.126del	p. Ala43ProfsTer53
18.	MISSENSE	c.91G>A	p. Asp31Asn
19.	FRAMESHIFT-DEL	c.612del	p. Ser205AlafsTer13
20.	MISSENSE	c.298G>A	p. Ala100Thr
21.	MISSENSE	c.250C>T	p. Pro84Ser
22.	MISSENSE	c.537G>C	p. Glu179Asp
23.	MISSENSE	c.338C>G	p. Ala113Gly
24.	MISSENSE	c.308A>G	p. Asp103Gly
25.	MISSENSE	c.256C>G	p. Leu86Val
26.	MISSENSE	c.215T>C	p. Leu72Pro
27.	MISSENSE	c.214C>A	p. Leu72Met
28.	MISSENSE	c.184T>C	p. Ser62Pro
29.	MISSENSE	c.175C>T	p. Pro59Ser
30.	MISSENSE	c.40A>C	p. Ile14Leu
31.	MISSENSE	c.39G>C	p. Glu13Asp
32.	MISSENSE	c.23G>A	p. Gly8Glu
33.	MISSENSE	c.20C>G	p. Thr7Arg
34.	MISSENSE	c.581G>A	p. Gly194Asp
35.	FRAMESHIFT-DEL	c.466del	p. Val156SerfsTer22
36.	FRAMESHIFT-DEL	c.352del	p. Gln118SerfsTer4
37.	MISSENSE	c.185C>T	p. Ser62Phe
38.	MISSENSE	c.179C>T	p. Ala60Val
39.	FRAMESHIFT-DEL	c.172del	p. His58IlefsTer38
40.	MISSENSE	c.156G>T	p. Gln52His

41.	1.	FRAMESHIFT-INS	c.119dup	p. Ala42GlyfsTer111
42.	2.	MISSENSE	c.70T>G	p. Ser24Ala
43.	3.	MISSENSE	c.17G>C	p. Arg6Thr
44.	4.	MISSENSE	c.461G>A	p. Gly154Asp
45.	5.	FRAMESHIFT-INS	c.125_126insGCGG	p. Ala43ArgfsTer111
46.	6.	MISSENSE	c.434G>A	p. Gly145Glu
47.	7.	MISSENSE	c.325C>T	p. Arg109Cys
48.	8.	MISSENSE	c.206C>T	p. Thr69Ile
49.	9.	MISSENSE	c.157C>T	p. Pro53Ser
