

TABLE S1. Breakpoint Junction Sequences								
I-SceI Site(CAPS)	micro-homology	WT	WT + ATMi	ATM^{-/-}	Nbs1^{n/h}	Nbs1^{n/h} + ATMi	Xrcc4^{-/-}	DNA PKcs^{-/-}
caaagaattcTAGGGATAA/CAGGGTAATggatccaccg								
insertions / deletions								
insertion+1		0/30	0/30	9/30	12/30	1/30	0/30	11/30
TAGGGATAAACAGGGTAAT. 1nt. insertion	2			9	12	1		11
deletion 1-5nt.		17/30	0/30	1/30	17/30	0/30	0/30	16/30
TAGGG...CAGGGTAAT 4nt. deletion	0	16		1				
TAGG...CAGGGTAAT 5nt. deletion	0				2			
TAGGG <u>A</u> ...GGGTAAT 5nt. deletion	1	1			15			16
deletion 6-9nt.		12/30	18/30	3/30	0/30	0/30	0/30	3/30
TAG...CAGGGTAAT 6nt. deletion	0		1					
TAGGG <u>G</u> ...GGTAAT 7nt. deletion	1		2					
T <u>A</u> ...CAGGGTAAT 7nt. deletion	1		1					
T <u>A</u> GGG...TAAT 9nt. deletion	4	11	5	1				1
caaagaattc...CAGGGTAAT 9nt. deletion	0	1	8	1				2
TAGG...ATAAT 9nt. deletion, 1nt. insertion	0		1					
TAGGG...T <u>G</u> AT 9nt. deletion, 1nt. substitution (G)	4			1				
deletion 10-19nt.		1/30	3/30	13/30	1/30	29/30	0/30	0/30
caaagaatt... <u>C</u> AGGGTAAT 10nt. deletion	1	1						
TAGGG...TAT 10nt. deletion, 1nt. insertion	0		3					
caaa...ATAACAGGGTAAT 11nt. deletion	0				1			
caaaga... <u>A</u> GGGTAAT 14nt. deletion	1					25		
...ACAGGGTAAT 19nt. deletion	0			1				
<u>C</u> AGGGTAATggatccaccg 19nt. deletion	2			12		4		
deletion ≥20nt.		0/30	9/30	4/30	0/30	0/30	30/30	0/30
caaag... <u>A</u> ATggatccaccg 20nt. deletion	3						6	
caaaga... <u>a</u> tccaccg 24nt. deletion	2			4				
... <u>a</u> tccaccg 37nt. deletion	2						2	
tcctgggc... <u>A</u> ACAGGGTAAT 52nt. deletion	3		9					
<u>g</u> tgctg...tctcatctttggcaaaga...(I-SceI site)... <u>a</u> tggtgagca 12nt. del., 41nt. del.	6,2						19	
ggttatttg... <u>a</u> gcatggtga 61nt. deletion, 1nt. substitution (g)	0						1	
cagctcctgg... <u>c</u> caccatggt 79nt. deletion	1						2	