

A. Primers in *LIG4a* gene

Oligo name	Sequence (5'-3')	Note	Acc. Nb	O.	[bp]	T°C
ligIV-1_ATGup	ATGCAGCAGGAGAATTTTATAGACGAAGAG	Used for <i>LIG4a</i> probe	PTETG5400008001	+	510	62
ligIV-1_500R	ATTATGCACAACCATGGGGAAATCACCAAC			-		

B. Primers in *XRCC4* gene

Oligo name	Sequence (5'-3')	Note	Acc. Nb	O.	[bp]	T°C
XRCC4_302_BglII.U	atgcagatctAGGAAATAATGTATAAGAGTTTAGAAG	Used for <i>XRCC4</i> probe, in <i>XRCC4</i> silencing	GSPATG00029540001	+	322/	53/
XRCC4_302_PstLR	atgcctgcagTACTCTTCATATTGTTTCTTAACTGG			-	302	61.5
XRCC4-496_U	GAATAAAAAAGAAATTAACAAGATGGCG	Used for probe in wild type, and as RNAi fragment	GSPATG00029540001	+	496	56
XRCC4-496_R	AAATCTCCTTGCAAACCTGTAAAAATGG			-		

C. Primer in 17S rDNA

Oligo name	Sequence (5'-3')	Note
17Sext_NcoI	ACCCGTGACTGCCATGGTAGTCCAATACA	Used as oligo probe on Northern Blot

D. MAC junction analysis

IES	Oligo name	Sequence (5'-3')	Diagram	GenBank	O.	[bp]	T°C
A1835	51A1835-5'	TAATGTATTGATAAGGCTTGCTCTACAGCC	- ► - - - - -	L26124	+	240/211	60
	51A1835-3'(4)	AGACAAGTAGGGAATCCACTTCTAGTAATC	- - - - - ◀ -		-		
A2591	51A2591-5'	ACACCAAGCGAAACATGCACAGTCG	- ► - - - - -	L26124	+	476/106	54
	51A2591-3'	TTTTATGGCATTAAAGCTTGTCAT	- - - - - ◀ -		-		
A4404	51A4404-5'	TAAATGTTTCAGCTTACAACGCAGCT	- ► - - - - -	L26124	+	263/189	56
	51A4404-3'(2)	CCAGTTATTGAACTGCAACTTACTGCAGTG	- - - - - ◀ -		-		

E. Circle junction analysis

IES	Oligo name	Sequence (5'-3')	Diagram	GenBank	O.	[bp]	T°C
A2591	51A2591-09	CAATATTATACATCTAGAACTTATAGTTAG	- - - - - ◀ = - - - - -	L26124	+	370/342	55.5
	51A2591-01	AGATTTATATCTTTTTTCTCAAATTCAGC	- - - - - ► = - - - - -		-		
A4578	51A4578-2	TGGTTGTTAGTCTCAAAGAATTCTAAAGAC	- - - - - ◀ = - - - - -	L26124	+	408	55.8
	51A4578-7	AAGAAATTTTATTGTAAATATATTTTCAGC	- - - - - ► = - - - - -		-		
G4404	51G07	TTTTGAAATATTTTCAAGTTTTTGGACTAC	- - - - - ◀ = - - - - -	AJ010441	+	222	54
	51G08	ACAATATATATTTACTTGATAATATTTTC	- - - - - ► = - - - - -		-		

F. LMPCR - Detection of free broken chromosome ends

IES	Oligo name	Sequence (5'-3')	Diagram	GenBank	O.	[bp]	T°C
	PCRhaut (▶)	GAATTCGGATCCGCTCGACCGTGGC	used with specific primer ▶ to amplify the ligated product				
A1835	51A1835-3'(3)	GTAGTACAAGATTTTTTCGACACAAGTTGAG	--- == == ▶ --- ◀ ---	L26124	-	225	60
	51A1835-3'(4)	AGACAAGTAGGGAATCCACTTCTAGTAATC	--- == == --- ◁ ---		-	180	62
	51A1835-5'(3)	GGTTGCGTAACACTTCCTCTTAAATGTGAG	--- ▶ --- ◀ == == ---		+	206	63
	51A1835-5'(4)	GAAGTCTAATGGATAACCTTGTGGATGGAC	--- ▷ --- == == ---		+	147	63
A2591	51A2591-16	AATTGTAAATTGACTTCAGCAAATAAAAAA	--- ▶ --- ◀ == == ---	L26124	+	218	60
	51A2591-17	ATGTGTTTGGACTGGATTGGCATGTAGAAG	--- ▷ --- == == ---		+	189	63
A4404	51A4404-5'(2)	TGGAATAGTGTGCATCACCAGCTGCTTGC	--- ▶ --- ◀ == == ---	L26124	+	177	63
	51A4404-5'(3)	ACCAGCTGCTTGCATTCAAATATCCACAGT	--- ▷ --- == == ---		+	160	63
G4404	51G18	ACTGTTGCTACACATTGTGCATATGTTACT	--- ▶ --- ◀ == == ---	AJ010441	+	135	60
	51G13	TGCATATGTTACTGGAAC TGGATTGGTAGC	--- ▷ --- == == ---		+	118	63
sm19-576	sm19-2	AATTAAGCAAGAAAAGAAATAGAAAAAACC	--- ▶ --- ◀ == == ---	AJ272425	+	188	54
	sm19-3	CTACAATAATGAGTCTAGCTGGTGGCACTG	--- ▷ --- == == ---	(mac sequence)	+	139	63

G. LMPCR - Detection of free broken IES ends

IES	Oligo name	Sequence (5'-3')	Diagram	GenBank	O.	[bp]	T°C
	I' (▶)	GCTCGGACCGTGGCTAGCATTAGTC	used with specific primer ▶ to amplify the ligated product				
G4404	51G11	GGACTACTTTTGA AATTGAATTATAACAAAGGC	--- ▶ == == ◀ == ---	AJ010441	-	154	60
	51G10	AAAGGCTAATTTGGATGAATGAGCATTAAATC	--- == == ◁ == ---		-	127	60

H. Detection of free broken 3'OH ends

IES	Oligo name	Sequence (5'-3')	Diagrams and Notes	GenBank	O.	T°C	
	I' (▶)	GCTCGGACCGTGGCTAGCATTAGTC					
	Anchor(G)	GCTCGGACCGTGGCTAGCATTAGT GAGTGGGGGGGGGGGGGG					
G4404	51G18	ACTGTTGCTACACATTGTGCATATGTTACT	--- ▶ --- ◀ == == ---	AJ010441	+	60	
	51G13	TGCATATGTTACTGGAAC TGGATTGGTAGC	--- ▷ --- == == ---		(primer extension and sequencing)	+	63
sm19-576	sm19-3	CTACAATAATGAGTCTAGCTGGTGGCACTG	--- ▶ --- ◀ == == ---	AJ272425 (mac)	-	64	
	sm19-5	ATCCACACTTTTATCGATTTGCTTTGATCC	--- == == ▶ --- ◀ ---		---	-	60
	sm19-3-aval	GTGGCACTGGATCCGGTCTAGGTAGTAG	--- == == --- ◁ ---		(primer extension and sequencing)	-	64
	sm19-6	ACTTAACATTTAATATATCCTGTCAATTCTC	to sequence sm19-5/I PCR products		-	-	-