Table S1. Specific primer sequences for qPCR in the study

Type	Gene	Primer sequence (5'-3')	Genbank number
apoptosis-related genes	*caspase-3*	F: GAGCCACGGCACGAACACC	MH183147.1
		R: AGGCTGGGGCACTGCTCATC	
	caspase-8	F: TGGAGCGTCATGGTTCAGAC	AKS36884.1
		R: CAGACAAGCCACCACTGCTA	
	bax	F: TGCTGTTGCCTCCACTTACC	Sequence No.1 from our RNA-seq
		R: ATGAGGGGTCTCGACTGGAA	
	bcl-2	F: CATCATCTCCCTCTTCGCGG	Sequence No.2 from our RNA-seq
		R: CAGTCCCATCACGTCGATCA	
	p53	F: TCGACATGGAAGGGAAGCAC	JQ613218.1
		R: CTGACTTCAAACGGCACAGC	
	cytc1	F: GGCCAAGGATGTGTCAGTGT	Sequence No.3 from our RNA-seq
		R: AGTACGGACCACTTGTGTCG	
MAPK pathway-related genes	*erk*	F: CGCGAGTTGCAGATCCAGAA	GU002542.1
		R: CAAGGGGCGATTGGACAACA	
	jnk	F: ACCTCCTGTCTCGCATGTTG	KC900087
		R: ACAGTGTGTTCCCGGTCATC	
	p38	F: TACGGGCAAGTCTGCTCGGC	KF582665.1
		R: AAGGTGGTGGAGGGCGTGAAG	
	AP-1 (jun)	F: CCCGCACCTACAAACTCCAT	Sequence No.4 from our RNA-seq
		R: CTGCAATGCGGTTCCTTAGC	
endoplasmic reticulum stress-related genes	*eif2α*	F: GCTGACAGTGTAACCACCCT	Sequence No.5 from our RNA-seq
		R: TGTGGAGTCCCCTTGGATGT	
	atf4	F: ATTCCAACCTTGTCCCTGCC	Sequence No.6 from our RNA-seq
		R: GTCTTCAGGGTAGACGTGCC	
	atf6	F: CAACCTTGGACCCTTGTCGG	Sequence No.7 from our RNA-seq
		R: CTGCGTCATCCCTTGACCAC	
	ire1	F: TAGTTTTGTGGTCCTGCCCC	Sequence No.8 from our RNA-seq
		R: GGACTTGGTGATGGCATGGA	
	grp78	F: CCTTCTATGCCACCAAGCGA	KC493626.1
		R: CTTGCCATCGTCGGTCTGTA	
autophagy-related genes	*atg7*	F: TCCGACTTCATCCGAAAATACC	MT543027.1
		R: GCACTCAACCCCAAGCCTG	
	tfeb	F: CCAACAACAGTGTGCCTGAC	Sequence No.9 from our RNA-seq
		R: TGAACCTTCGTCTTCGCTCA	
	p62	F: ACAGACGCCAAGTACCAAGG	Sequence No.10 from our RNA-seq
		R: AGGCTCACTCGTCTCCTGAT	
	beclin	F: GCCCATATACTGTGGCGAGG	MH173046.1

		R: CCAGGTCAAAGAGCCCAGTT	
	ampkβ	F: CAATCGTTGACCTCCCAGAA	MK676045.1
		R: ACTTCCCTTTCCTTCCCAGAG	
	lc3c	F: CACGTTGCCTATCCTCGACA	Sequence No.11 from our RNA-seq
		R: GTCATCGTCCCTACACTCGC	
	lc3a	F: ACGTCACGATGGGAGAACTG	Sequence No.12 from our RNA-seq
		R: GTGGTGGTGCTCGTAAACCT	
	lamp	F: TACACTGCACTGCCGACAAC	Sequence No.13 from our RNA-seq
		R: TATGCTCCCGACCTTTTGCG	
immune response-related genes	*toll2*	F: GCATACCAGGACGACGAACA	KC011816.1
		R: TGAGCGAGGAGAGCTTGTTG	
	myd88	F: ACAAGAGTCAAACCGGGGAC	KM433864.1
		R: AGAACTGGTGGTGCTCATGG	
	relish	F: TCAGGATTCGGTGGCAACTC	GQ871279.1
		R: ATCTGCACTTGGACCGATGG	
	il-16	F: TGACATTGGTCGCTCGTCTC	AWM96383.1
		R: CTTGAGATGCGAGGGAGGTC	
	litaf	F: ATCAGCTCCCCCACCCTATG	KF892539.1
		R: GTTGTTGGAGCAGCACCTTG	
	akirin	F: CAAACCGCTCTTCACCTTCAG	KC011818.1
		R: AAGGGCTGTTTGGGAGAGTC	
	pelle	F: CCCTACACCGAGAGGAAGCA	KP795393.1
		R: GACTCGCCACACTTCTCAGC	
	lzm	F: ATGATGCGTGTGATCTGCC	JN416111.1
		R: CATGACGCATCCATCGCTTG	
stress and detoxification-related genes	*hsp60*		KP642083.1
		F: AAAGGCAAGGGCAAGTCGTC	
		R: GGCCATTCGTTCCTGCATCT	
	hsp70	F: GGCAAGGCAGCGAAGGTCATC	KC493625.1
		R: CGGCATTGGTGACAGACTGACG	
	hsp90	F: TCACCAACGACTGGGAGGAT	EU809924
		R: CAGGAAGAGGAGTGCCCTGA	
	mt	F: ACCTCCTGCCGCTGTACTCCCT	GU479376.1
		R: GGAAGACGGCGTTGGGAAGG	
	cyp2A	F: ACCGCCGCTTCACCTTAC	KR262517
		R: CTTGCTTGCCACCATCTGC	
	cyp2B	F: ACTTGGTCCTCCTCATCTTCG	KT159166
		R: TCTCCCTCAGCATCCTCTCC	
	cyp4	F: AAGACTTCGTGGAGGTGTTC	KX812713
		R: GCACAGCGTTATGTTGGTGAAG	

Internal reference	*β-actin*	F: GCATCCACGAGACCACTTACA	HM053699.1
		R: CTCCTGCTTGCTGATCCACATC	
	ube	F: TTGCGTTCACAACTCGTATCTACC	HQ436509
		R: GTCCGTGAGGAGGGAACAGA	

Gene sequences applied in this study

Sequence No.1 *bax*

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GGTATCACACGAGAACGTATTGTGGCATTGTTCACCTTCGTGGGTGATGTGGCTGTGCA
CCAAGTAAGGATGAAGGGAGAGGAACTGATCCATCTGCTAATGAAGTGGTCCTTTAGG
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Sequence No.2 *bcl2* (partial)

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Sequence No.3 *cytc1* (partial)
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TGGCCTACGCCCTCAACGAGTCAGTGAAGGCGTCTGACCTTACTCTCCACACCACCAC
CTTCCCCTGGGCCCACAATGGCATCTTCTCCTCCCTGGACCATGCCTCCATCCGCCGTG
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AGGATGTGTCAGTGTTCCTCAAGTGGGCCTCTGAGCCGGAGCACGACGACCGCAAGA
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Sequence No.4 *AP-1 (jun)*
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AGTAG

Sequence No.5 *eif2α*

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Sequence No.6 *atf4*

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Sequence No.7 *atf6*

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Sequence No.8 *ire1*

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AAATAG

Sequence No.9 *tfeb (partial)*
CAGGTGGAGGATGTCATCGACGAAATCCTTAGCCTGGAGGAGGGCTACGAGGCTGAC
ACTCGCAAGACCCCGGAGCAGCTGTGTGGCGTCCAGCCCGCGGCCAACAACAGTGTG
CCTGACCCACTATGCAATATACTGGGCCTCAACAGCTACATGGGCAAGACGTCCACCTC
GTGTCCTCCTGACGTGCCCCAGGTGAAGAGCGAGCCGCCCGTCAACGACCAGCAGCT
GGTGGCCTACATGAAGGACAGGCAGAAGAAGGACAATCATAATATGATTGAGCGAAGA
CGAAGGTTCAACATCAACGATCGCATCAAAGAGCTGGCCACTCTCCTCCCAAAGAGCA
ACGAACCGTACTTTGAACTCGTGCGAGACCTTCGCCACAACAAAGGTCAGATCCTCAA
GGCCTCCGTGGACTACATTCGGCGCCTCAAGCTGGACGCTGATGCCAACAAGGAAGC
GGAGGCCAAGCGTCGCGCCCTTGAGCAGCAGAACAGGCAGCTCCACCTTAGAATACA
GGAGCTGGAGGGAAGGCTGCGTTCAAATGGCATCAAGGTGGACGAGACCAACATAGA
TAAGAGTTTGCTCCTGTCAACGATCATTAAGACGGAGATG

Sequence No.10 *p62*

ATGCCGGAGGAGGCCAATATGAGTTTCAAGGTGTATCTGGACCTGGGTGGCGGCCGGC
AGGAGGTGCGGCGCTTTGCCCTGCCGGAGACTGTGGCCACCAACTACTCGGTGCTGA
GGGAGAAGGTCTGCAGTATCTTTGGCCTAGCGAACCAAGATGCCGTCCTCTCATGGAA
GGACTCCGAGGGTGATGCCATTGTCATCTCCACCGACGACGAACTGATGGAGGCCGTA
GCAGACAGCCTGAGCAACCAGAATGCCCAGTTGGTACGAATCAACGTGTCGGAGAGC
AGCGGCCGCCCAGAGCCTGGCACCGGCGGACGTCCAGGGAACCAGGTAGGAGACATC
CATCTTGGCGTGACCTGCGATGGCTGCAGTGGTGTCGTCCAGGGCTTCCGCTACCGCT
GCGTTGCCTGCCCGGACTACGACCTGTGCGGCGCCTGCGAGACCAAGGGAATGCATAA
GGAGCACAAGATGATCCGCCTGCCCAAGCCACAAGACCCTGGAGCTCCAAAGTTCTT
CTGGAAGGAGAGAGAGGAAGGGCCGGGCCAGTATTCAACTCACTTTGGGATGCAAGG
CGGTGATGCTGGTGGAGGTACTTTCCAGTCCAGCTCCTTCAGTGGCTGTGGTGCTGCT
GGTCCTGGGACTGGTGGAGGGGCTTGGTTTGGCTTTGGCGGTCCACGTGGGCGCTGCC
ACAGGCGGGGGCATGGAGGTGGTGGTCGGGGCCGTGGAGCCTGGCCAGGGTGGTGG
GGGCGAGGCTGGTCTGGGAAGAACTGGGCTGGCTGCGGTCAGGGGCAGACCATGGGC
TCAGACTCTGGATGTCAGCAACAGCAGCAGCAGCAGTCATCATCTGAGCAGCCCCAGC
AACAACAGTCCCAGCAGTCCCAGCAGCAACAGTCCCAGCAACAACAGAGTAATGACA
AGAGCCCCAAGGATGAGAGTGGGTGCCCTTGGCTGAATGCGGAGGGTTCTGCTTGCC
CCTTCATGGGTGAGGACACTGGTGTACCAACCCCGGAGCAGGTACAGCAGATGGCAC
AGCAGGCTGCTCATCAGGCCGCCCAGCAGGCCCACCACTTTGCCACGCACTACGCCTC
CGACCATCTCGCCAATGTCATGCGTGGAATCTGGACAGCTTGGTCTGGCCAGCAGGGA
CCGAACGCCACCACATCAACCTCCTCCTCCTCCTCCTCCAGCTCCTCCTCCTCCCACTC
TGCCAGTGCCAGCCAGGACGGCCCCAAGCAGGGTACAGCAGAGGAGCAGAAGAGCG
AGCAGGGAGGGCAGTTTGTCAGGGAGGAGTACCTGAGGAACGTTGGGGAGACGGTT
GCCAACATGCTGGACCCTCTCGGCATTGACGTGGAGGTGGCCGTGGAGCACAATGGG
ATTCGCCAGCGCTGCAGCCTCGGGGAAAACGCACCCACCTCACAGAGCAACGCCTCA
CCAACCCCAACCAGCCCCACCAAGCAACCAGAGTCCACACCTTCCTCCTTGGCCTCCG
GAAGCGTGAACATGGAGGTGCAGACCGAGGAACCTGCAGAACCACAGACGCCAAGT
ACCAAGGATGTCGAGGCTATGGATGTCGCAAGCCCAGCACCAGCCCCAGTTAGCCAGG
TCGCAGGGGGGCAGGCAGAGGGTCACACTGGGTCCCCTGAACCCGAGGACTGGATGC
TAGTGAATCAGGAGACGAGTGAGCCTGCCTCAGCCTCCGGGGTCAGACCCAAGACCC
CACCAAATGATAAGCCAGTGTCCTACCCAAGTCTGAAGGAGCTCACGCCTCATCCTGA
CCCCAAGATCCAGCAGTCCTTGGAGCAGATGTCAGCGATGGGCTACAGCAACGAGGG
AGGCTGGCTGACCAACCTGCTGGAGATGAAGCAGGGAGACATCAACCAAGTCCTGGA
CCTCCTGCAGCCGGTCAATAAGTAA

Sequence No.11 *lc3c*

ATGAGGCCCCGACCACGTGTGATGAGGTGCAGCTGTGTGTTCTGTGCTAAAGCCCCGG
ACAGCAGTACAAGCATTAGTAAGGACTGCGAGACTGCTTATTTCCCCTACCTCGGCGCT
GGCATTGCAGGACCCGTAGTGGTGCCCAAAACCTTCAAGCAGATGTACAGTTACACCT
CCAGACAACAGGAAGTGGCGAATATCAGAAGTAAATTCCCGAACAAAATTCCCGTGGT
GGTGGAGAGGTACGCGAAGGAGACCACGTTGCCTATCCTCGACAAGACCAAGTTTCT
GGTGCCTCAGGAGCTCACCATGTCCCAGTTCGTCACCATTCTCAGGAACAGAATGCAG

CTCCAATCCACCATGAGTTTCTACCTCCTCGTCAACAACCGCTCGCTGGTCTCCCTCTC
GCGGCCGCTCTCCGAGGTGTACCGCGAGTGTAGGGACGATGACGGCTTCCTCTACGTC
ACCTACGCCAGCCAGGAGGTCTTCGGCTGAGGGCAGGACAGATGAGGTCCGGTCAAG
GTGCTCAAGCTTTGTACTGCTGTGATAG

Sequence No.12 *lc3a*
ATGAATGCACAGGTTAAGCCCTTCAGGGAGCGACGGAGCTTTGCCCAGAGGCAGCGT
GACGTGGAGCAGATCCGCGAGCAGCACCCCAACAAGGTCCCGGTGATCATCGAGCGT
TACCCCGGCGAGCGCCACCTCCCACTGCTGGACAAGACCAAGTTCCTGGTGCCTGACC
ACGTCACGATGGGAGAACTGGTCAAGATTATTCGCCGTCGCCTCCAGCTGCACCCGAC
ACAGGCTTTCTTCCTTCTGATCAACCAACGCTCTCTTGCCAATGTGTCCAGCACCCTCG
CCCAGGTTTACGAGCACCACCACCACGAGGACGGCTTCCTCTACATGGTGTATGCGTC
CCAGGAGGTGTTTGGATAA

Sequence No.13 lamp (partial)
ATCAAGTACAGCGTGACTGATGAAAATAATGTGACCTGCATTATTGTAGCAGGGGAAAT
ATTTTTCAATGTCAACTACACACTCCGTGACAATACAACTGCAGTCAAGTCTGTGTTTG
TGCCATCCATTGGTGTCACAGTTGATGGGTCTTGTAATACAACTGAAGGCAATCAGTTC
ATCTCATTCTCTTGGGACAAAAACAACTCTGTCCAGATGAACTTTGAAATTGGAGACA
AGGATGCCTGGATGTTCACAACCCTCACAGCCTCCCTGCTCATGGATGATGACTCATTT
GCAAATGCTACAGATGCTGGCAAGACACTTGACCTGACAGTAGATTACAACTTTAGCC
CTGGTGAAGTGAGTGTCAACCACAGCTTCATCTGCCGCTCCTCCATTACCACCAACAAT
GTGACTGCCACCATTGAAAAGGATACTTACAGCTCTCCAGTCACATCTACCCTGAAGA
ACATCCAAATGCAGGCCTTCAACAAGATAAAGGGTCAGGAAAACTTTGCAGAGTCTGT
ACACTGCACTGCCGACAACACCTCGGATGTGGTACCCATTGCTGTTGGCTGTGCTCTG
GCTGGCCTGGTAGTGATTGTGCTCATTGCCTATCTGGTAGGTCGTCGCAAAAGGTCGGG
AGCATACCAGTCGGTG