

SUPPLEMENTARY TABLES

Table S1. Detail information of all the circRNAs identified in this study – see Full Text version

Table S2. Detail information of the differentially expressed circRNAs identified in this study – see Full Text version

Table S3. Details of the GO enrichment with statistical significance – see Full Text version

Table S4. Details of the KEGG enrichment with statistical significance – see Full Text version

Table S5. The circRNA-miRNA-mRNA interaction analysis for all DE-circRNAs – see Full Text version

Table S6. Primer sequences used in this study.

Transcript ID or Position	Gene Symbol	Exon Composition	Primer Sequence	AT (°C)	Product Length (bp)
Up-regulated circRNAs					
hsa_circRNA_0018996	<i>CCSER2</i>	4-9	F: 5'-TGTCATTGCCATCCAGTC-3' R: 5'-AGCGGTTTCATATTGTCACA-3'	61	342
hsa_circRNA_0008016	<i>FGFR1</i>	3	F: 5'-CCTACTTCTCCGTCATGTT-3' R: 5'-CAGCCAGTTGATGCTCTG-3'	60	134
hsa_circRNA_0003169	<i>FAM185BP</i>	4-6	F: 5'-GGTTGATGTGAACTCAGAAG-3' R: 5'-GAAGACGAATCTACTGTGATG-3'	57	126
hsa_circRNA_0005328	<i>QKI</i>	2-3	F: 5'-CTTGGACCTAGAGGACTTAC-3' R: 5'-CAGCATCAGGCAATTCTG-3'	60	180
hsa_circRNA_0008421	<i>FBN1</i>	3-6	F: 5'-CCAGTGTGAAAGAGACCCAATG-3' R: 5'-CCGGCAAATGGGGACAATAC-3'	60	108
hsa_circRNA_0017105	<i>NID1</i>	5-9	F: 5'-GGCGAACCTGCTATGTTTTCA-3' R: 5'-GCGCCCGTGGTTCATTA-3'	55	284
hsa_circRNA_0004431	<i>PIK3CB</i>	15-17	F: 5'-ATGAAGCCTTTGTGGCTGGT-3' R: 5'-GAGTGCTTCAACCGAAGATCC-3'	57	170
hsa_circRNA_0029434	<i>ADGRD1</i>	9-13	F: 5'-AGCACAGATTGACCTTCTT-3' R: 5'-TCGATGAGACTCAGTACCA-3'	52	100
Down-regulated circRNAs					
chr3:12516611-12532773	<i>TSEN2</i>	7-9	F: 5'-GAGAGGAGTGACCAAGACGAT-3' R: 5'-AACATCCCAGAGCATAGACCAA-3'	55	110
chr14:92088730-92096838	<i>ATXN3</i>	2-4	F: 5'-CAGTCCAGAGTATCAGAGG-3' R: 5'-CTTCTTGCTTCCTGTTGTAA-3'	55	198
hsa_circRNA_0017160	<i>MTR</i>	16-18	F: 5'-AAGCCATTCGAGAAGCAAT-3' R: 5'-GTGTTCTCCATTCCAGTC-3'	61	326
hsa_circRNA_0004244	<i>MNAT1</i>	4-7	F: 5'-ACTGGCACCTATTCACAAG-3' R: 5'-TCCTGTCTCCACTTCT-3'	61	262
hsa_circRNA_0020611	<i>SIRT3</i>	2-4	F: 5'-TCTACACGCAGAACATCG-3' R: 5'-CACTTCCAACAACACTTGAA-3'	59	196

hsa_circRNA_0083220	<i>ESYT2</i>	2-7	F: 5'-TAACTGGACAGGACTGACGAAT-3' R: 5'-CCGCACGGCTGGTTCTATA-3'	61	165
hsa_circRNA_0060762	<i>CSEIL</i>	19-23	F: 5'-AGAGCATGATCCTGTAGGT-3' R: 5'-GGCATGTGCTCTATTATACTG-3'	60	186
hsa_circRNA_0000983	<i>NCOA1</i>	Intron 2-3 + Exon 3-4*	F: 5'-AACAGGAGTTCTTCTGCTAG-3' R: 5'-CACACCACTGTTTGTAAGC-3'	60	333
hsa_circRNA_0024246	<i>DDX10</i>	7-10	F: 5'-GGAAATCAACACCCCTGCCA-3' R: 5'-CGACCATGGAGTGCAAGGAT-3'	60	204
hsa_circRNA_0061363	<i>LTN1</i>	2-3	F: 5'-GGTGCTGCGGAAACTTTCAA-3' R: 5'-GTCACTCTGAGATGTTCCA-3'	63	235
Common-expressed circRNAs					
hsa_circRNA_0058213	<i>ARPC2</i>	6-8	F: 5' CAGTAGTCTTCAGCACAGT-3' R: 5'-ACATTGTATCAGAGGAGGTT-3'	52	146
hsa_circRNA_0006166	<i>RGPD2</i>	13-14	F: 5'-TCAGGCATCAGAAATTGTTG-3' R: 5'-GGATCAATAGGTTTCAGGAATAC-3'	55	267
hsa_circRNA_0000442	<i>MED13L</i>	Exon 2 + Intron 2-3*	F: 5'-TTGCAGCAGCATTGTAGA-3' R: 5'-CCACCAGAATATCCATAACTC-3'	60	250
hsa_circRNA_0005078	<i>BMPR2</i>	12	F: 5'-ATCAAAGCCCAGAAGAGCAC-3' R: 5'-AGGACCAATTTTTGGCACAC-3'	60	120
hsa_circRNA_0001181	<i>BACH1</i>	2-4	F: 5'-CGCTGTGCGAAGAGAAAAC-3' R: 5'-AGGCAAAAACCGAGTTCTCA-3'	60	151
hsa_circRNA_0001821	<i>PVT1</i>	2	F: 5'-GACTCTTCCTGGTGAAGCATCTGAT-3' R: 5'-TACTTGAACGAAGCTCCATGCAGC-3'	60	144
hsa_circRNA_0030122	<i>VWA8</i>	3-4	F: 5'-ACATTGATCAGTTTCAGACTCTCT-3' R: 5'-AAACATCTTGCCCCAAAAGATCC-3'	55	89
Linear RNAs					
	<i>BMPR2</i>	/	F: 5'-GCAGCAGTATACAGATAGGTGAG-3' R: 5'-AGCAAGTCTTTGTTGCAGGG-3'	60	398
	<i>BACH1</i>	/	F: 5'-CTCTCGCTTCAGTCAGTCGG-3' R: 5'-CGCTGTCCCTCCACAAAGAT-3'	60	233
	<i>PVT1</i>	/	F: 5'-CTTCCAGTGGATTTCTTGC-3' R: 5'-CATCTTGAGGGGCATCTTTT-3'	60	125
	<i>CCSER2</i>	/	F: 5'-GTGGAGTGTGACAATATGAAC-3' R: 5'-GTGGCTGAGGTGGTAATG-3'	63	123
	<i>ATXN3</i>	/	F: 5'-TGCTCAACATTGCCTGAA-3' R: 5'-ACTCCTCCTTCTGCCATT-3'	63	117
	<i>SIRT3</i>	/	F: 5'-CAAGGAGCTGTACCCTGGAAA-3' R: 5'-CGACACTCTCTCAAGCCCATC-3'	60	124

Housekeeping gene

<i>GAPDH</i>	For qPCR	F: 5'-CACTAGGCGCTCACTGTTCTC-3' R: 5'-GACTCCACGACGTACTCAGC-3'	59	350
<i>GAPDH</i>	Face-to-face	F: 5'-GAAGGTGAAGGTCGGAGTC-3' R: 5'-GAAGATGGTGATGGGATTTTC-3'	60	226
<i>GAPDH</i>	Back-to-back	F: 5'-GCTGAGTACGTCGTGGAGTC-3' R: 5'-GAGAACAGTGAGCGCCTAGTG-3'	60	/

AT: Annealing Temperature. *, circRNA that contains parts of the introns.

Table S7. Prediction of circRNA-miRNA binding sites.

circRNA	miRNA	Local AU	Matching type	Position
hsa_circ_0003169	hsa-miR-130b-5p	GAAAGAG	7mer-m8	182-201
	hsa-miR-4682	AACTCAGA	8mer	12-32
	hsa-miR-1301-3p	AGCTGCA	7mer-m8	23-46
hsa_circ_0024246	hsa-miR-1301-3p	AGCTGCA	7mer-m8	229-254
	hsa-miR-4660	GAGCTGCA	8mer	25-45
		GAGCTGCA	8mer	229-253
hsa_circ_0030122	hsa-miR-623	CAAGGGA	7mer-m8	152-176
	hsa-miR-7158-3p	TAGTTCA	7mer-m8	12-32
	hsa-miR-29a-3p	TGGTGCT	7mer-m8	143-165
hsa_circ_0061363	hsa-miR-29b-3p	TGGTGCT	7mer-m8	142-165
	hsa-miR-29c-3p	TGGTGCT	7mer-m8	143-165

Notes: 7mer-m8: an exact match to positions 2-8 of the mature miRNA (the seed + position 8); 8mer: an exact match to positions 2-8 of the mature miRNA (the seed + position 8) followed by an 'A'.