

Supplementary Table 1. List of probe sequences and accession numbers of the targeted RNAs.

| Target | Accession # | Amplification | Hairpin | Fluorophore | Probe # | Probe-binding sequences |
|--------------|-------------|---------------|---------|-------------|---------|-------------------------------------------------------|
| <i>DLEU2</i> | NR_152566.1 | HCR v3.0 | B1 | Alexa 546 | 1 | agtgtcagataatagctcatttttagtagagggcaataaatgccacatgagat |
| | | | | | 2 | cggactggagctcagacggccttcgccagccccccaaccacgcagatccc |
| | | | | | 3 | ctgacctgggcaactccccacctcgctgaaggttcgaggaccaccgctt |
| | | | | | 4 | aactgccactagaaaaagatgactgtcctaactaaacctgcatacacagcta |
| | | | | | 5 | ttgatgacaagcatagcagctccaagtcacctaataagccaaaaattt |
| | | | | | 6 | tgggattacaggcgtgagccaccgtaccggcccagaatctttgcctttgt |
| | | | | | 7 | tagtgattatgtgtggcctaagtggaattgatcaataccccaatctcaagc |
| | | | | | 8 | ggagctttgctgaaactgcacaaaaatcgagccggggggttccttggtccc |
| | | | | | 9 | gagagccagagctccgatccctgcgaggctcgagagctgccccgaacgg |
| | | | | | 10 | gtgcagaataacatcaatatgcaataatggtggcceaaggagcctgcacca |
| | | | | | 11 | cgttttacaaaaccagtgataaagccaaatgtccatttaaagtttgaca |
| | | | | | 12 | ctctggcttgtaacttaagtgtgtagaagcttgaaggaaatgtggactta |
| | | | | | 13 | attgcccttcccctcaaaaaaggtgagaactgactaaactactggtactt |
| | | | | | 14 | atgagattaagctgggagcagaggctgggagatcgatgctgcttgcagctg |
| | | | | | 15 | tccggacggagcaggtttctggaccacagacacactgccccggcgcctcc |
| | | | | | 16 | tccttccctggaagagcacagtggaactagatcctagtacagatagcacagg |
| | | | | | 17 | aactttgaaagaagcttcaaaaagaaccaagtctacaaaggcacagtt |
| | | | | | 18 | gtacattgttactggtgactggttgctgctggtgggctttttgtccttc |
| | | | | | 19 | gtgaaccagagaatggatggttcagaatcttttttttttgagatggag |
| <i>H19</i> | NR_002196.2 | HCR v3.0 | B2 | Alexa 546 | 1 | tctggagtctggcaggagtgatgacgggtggaggggctagctcgaggcaggg |
| | | | | | 2 | ggagccaggcattcatcccgtcacttttggttacaggacgtggcagctggt |
| | | | | | 3 | caggagagtagcaaaggtgacatcttctcggggggagccgagactgcgcaa |
| | | | | | 4 | cacaggggtggccagcgtagggtccagcacgtggggtggtacccaggcctg |
| | | | | | 5 | tacagcatccagggagtcagggtcagggcgagaccagactaggcgaggc |

6 aagacgccagggtccgggtggacgtgacaagcaggacatgacatgggtccgggtg
7 cggcggagacagaggaggcgctccggccttctgaacaccttaggctgggtg
8 gctgcgcaagaagcgggtctgtttcttacttctccacggagtggcaca
9 atggctgccctctgggctcccagaaccacaacatgaaagaaatgggtgctac
10 agctcaagcctgggccttgaatccggacacaaaaccttagcttgaaat
11 atatgctgactttacaaccactgactacctgactcaggaatcggctctgg
12 ggtgaagctagaggaaaccagacctcatcagcccaacatcaaagacacatcg
13 cccctcggcggacggttgaccaccagccaccacatcatcccagagctgagc
14 ttgactggttgagttgtggagacggccttgagtctcagtacgagtgtgc
15 agtctggaagctccgaccgacatcacggagcagccttcaagcattccattac
16 cccatctgctctgtgccctccccaccagggttcagcaggagccctggac
17 gggaagatgggggtgctggaggagagcttgtgggagccaaggagcaccttga
18 ggtggggcctgaggccagtgaggagtgtggagtaggcgccaggcacgtgc
19 tagctggcagcagcgggcaggtgaggacccatctgccgggcaggtgagtc
20 tcctccccaggcctcgttccccagccttctgaaagaaggaggttagggg

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|---------------|-------------|----------|----|-----------|----|-----------------------------------------------------|
| <i>HOTAIR</i> | NR_003716.3 | HCR v3.0 | B3 | Alexa 546 | 1 | cgtctttatTTTTTaaagcccaaagagtctgatgtttacaagaccagaaa |
| | | | | | 2 | agctagagagagagccagaggaggaagagagcgcagacgaaggtgaaagc |
| | | | | | 3 | acagagagaataatccgggtcctagctgccacatgaacgccagagaacgc |
| | | | | | 4 | ctgggagcgctaattaattgattccttggactgtaaaatatggcggcgtc |
| | | | | | 5 | cacggaaccttgactcataaacaatatactgttggcgtgagtgcactg |
| | | | | | 6 | caggaatccacctgctgttacacgccttccaagacacagtggcaccgctt |
| | | | | | 7 | cccagcttgggacaaaagttgagtagaaaaatagacataggagaacactt |
| | | | | | 8 | agcctaggcaggcagtggggaactctgactgcctgtgctctggagcttgat |
| | | | | | 9 | acttagaccctcaggtccctaataatcccggaggtgctcaatcagaaaggt |
| | | | | | 10 | tgctccgcttcgagtggaatggaacggatttagaagcctgcagtaggggag |
| | | | | | 11 | accacgcagagaaatgcaggcaaggagcaaggcggcagttcccggaacaaa |
| | | | | | 12 | taaaagtgaaccagccctagccttgggaagcttgaaggttcagaccca |

13 gaacttctctgctattaagattgctagagaattgtgtcttaacagtca
14 tagctaaatagactcaggactgcacattccttgttaggtgtgtgtgtg
15 tataagtatgcattggcgagagaagtgtgcaacctaaaccagcaattac
16 cttgggttataggaaagcctttccctgctacttgttagaccagccaatt
17 tggatgcaggggacttgagctgctccggaatttgagaggaacatagaagcaa
18 gtgattatgcagtgggaccctgctgcaaacgggactttgactctaaatata

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|---------------|-------------|----------|----|-----------|----|------------------------------------------------------|
| <i>MALAT1</i> | NR_002819.4 | HCR v3.0 | B1 | Alexa 546 | 1 | GTAAAGGACTGGGGCCCCGCAACTGGCCTCTCTGCCCTTAAGCGCAGCG |
| | | | | | 2 | ATTTTAGCAACGCAGAAGCCCGGCCCGGAAGCCTCAGCTCGCCTGAAGGC |
| | | | | | 3 | GTCCCCTCTGACGCCTCCGGGAGCCCAGGTTCCAGAGTCCTTGGGACGCA |
| | | | | | 4 | GACGAGTTGTGCTGCTATCTTAGCTGTCCTTATAGGCTGGCCATTCCAGGTG |
| | | | | | 5 | GGTATTTAGATAAAAACCACTCAAACCTGCAGTTTGGTCTTGGGGTTTGAG |
| | | | | | 6 | AAGCTTTATTTTCTTCTGCTCCGGTTCAGAAGGTCTGAAGCTCATACT |
| | | | | | 7 | CCAGGCATAACACAGAATCTGCAAAACAAAAACCCCTAAAAAAGCAGACCCA |
| | | | | | 8 | GCAGTGTAACACTTCTGGGTGTGCCCTGACTGGCTGCCAAGGTCTCTGT |
| | | | | | 9 | CTTCGGAGACAAAGCCATTGCTTAGTTGGTCTACTTTAAAAGGCCACTTGA |
| | | | | | 10 | TCGCTTCCATGGCGATTTGCCTTGTGAGCACTTTCAGGAGAGCCTGGAAGC |
| | | | | | 11 | AAAAACGGTAGAAAAATTTCCGTGCGGGCCGTGGGGGGCTGGCGGCAACTGG |
| | | | | | 12 | GGCCGCAGATCAGAGTGGGCCACTGGCAGCCAACGGCCCCCGGGGCTCAGGC |
| | | | | | 13 | GGAGCAGCTCTGTGGTGTGGGATTGAGGCGTTTTCCAAGAGTGGGTTTTAC |
| | | | | | 14 | TTCTAAGATTTCCAAGCAGACAGCCCGTGTGCTCCGATTTCTGAACAAA |
| | | | | | 15 | AGCAAAACGTGTGGCTGTCTGGGAGCAAGTCGCAGGACTGCAAGCAGTTGG |
| | | | | | 16 | GAGAAAAGTCGCCATTTTGCCACTTCTCAACCGTCCCTGCAAGGCTGGGGCT |
| | | | | | 17 | GTTGCGTAATGGAAAGTAAAGCCCTGAACTATCACACTTAAATCTTCCTTCA |
| | | | | | 18 | AGGTGGTAAACTATACCTACTGTCCCTCAAGAGAACACAAGAAGTGCTTTAA |
| | | | | | 19 | GGTATTTTAAAAGTTCCGGGGGTTTTGTGAGGTGTTTGATGACCCGTTTAAA |
| | | | | | 20 | ATGATTTCCATGTTTCTTTGTCTAAAGTTTGCAGCTCAAATCTTCCACAC |

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|-------------|-------------|----------|----|-----------|----|-----------------------------------------------------|
| <i>PVT1</i> | NR_003367.3 | HCR v3.0 | B2 | Alexa 546 | 1 | ccagaaggagattaaaagatgcccctcaagatggctgtgcctgtcagctgc |
| | | | | | 2 | cttctcctgttgctgctagtgacatgagaaggacagaataacgggctccca |
| | | | | | 3 | ttcacaagccccaccaagaggatcaccccaggaacgcttgaggctgaggag |
| | | | | | 4 | gtctggggaataacgctggtggaacctgactggaatgacacacgcccggc |
| | | | | | 5 | attcttacagcttgatgtccatgggggacgaaggactgcagctggctgaga |
| | | | | | 6 | gttgagatctctgttacttagatctctgccaacttcctttgggtctccta |
| | | | | | 7 | cgctcagctgggcttgagctgaccatactcctggagccttctcccagggtg |
| | | | | | 8 | tcatctccccttgagctgctggcacgtggctcccttggtttcccctttt |
| | | | | | 9 | cttcagcactctggacggacttgagaactgtccttacgtgacctaagctg |
| | | | | | 10 | ttcatctgaggagctgcatctaccctgccatgcatagatcctgcctggt |
| | | | | | 11 | cactgaggctactgcatcttgagactcaggatgaagaccagctggggctg |
| | | | | | 12 | atcactgtgggaaaacggcagcaggaaatgtcctctgcctgctgctccac |
| | | | | | 13 | ggagcttctcaagtattttctgagcctgatggatttacgtgatcttcag |
| | | | | | 14 | gaatgtaagaccccactcttctggtgaagcatctgatgcacgttccatcc |
| | | | | | 15 | tcctgtgacctgtggagacacggccagatctgcctccagcctgatcttt |
| | | | | | 16 | catgtctgacacccatgactccaactggaccttatggctccaccagaagca |

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|-------------|-------------|----------|----|-----------|----|------------------------------------------------------|
| <i>TUG1</i> | NR_002323.2 | HCR v3.0 | B3 | Alexa 546 | 1 | gaatttggggaatgtgcgtttaggggaatgatccatcgtagcaagt |
| | | | | | 2 | atcctactttacatgtctaggctgtgtggttggtggaataggctctttt |
| | | | | | 3 | ttttgtggagtggctcaccgaagtggtaagccttaagcaagtgaacaaa |
| | | | | | 4 | tacagtttctgcaatagttggagcagataactttcagtgtagccacagcca |
| | | | | | 5 | actgttgacctgtctgtgagaaaagagacaacgactgagcaagcactaccac |
| | | | | | 6 | tgttcacctggaccttctgactaccttccctgtgctattccatcagcctaca |
| | | | | | 7 | cctggtacctggatttttcccagatgattcctaccaccttactactgacg |
| | | | | | 8 | gacaccattccagtgaccactgtgaccaggaggcattcagccatcatga |
| | | | | | 9 | ctgaatcctgctacaactatcttctttaccaccgtggtgacacctaagggg |
| | | | | | 10 | cttgaagtcttgacctccatgaatacctgaattatcagcaagcgggtttt |
| | | | | | 11 | agctggtgcctcattgaggccatattagagcaactgtacattgacctctt |

12 actcctaaacagaacctcaagtctgattgaggataaggccttctctgagct
 13 acctcatctatcgggtctggaaggaatacagcagttcgaagccgctccat
 14 ctctcttcagtagtcagaaatgagtcgattcaccagtacacacagaact
 15 ttagcagttcccaatccttgggtttgaacctgggaaccttgattggagt
 16 catggtgctgccagcccagctaattaatggtgcacgtggacttttagcaagc
 17 gctcactggaagagactgaacctggcatggaattcctgaagatggttgggt
 18 tggccctccttggttctaattgcttgcaagtgaataactaggatgtccaag
 19 gactccagatttcagattttcaagacctggacctggaacccgaaagagctt
 20 aaaggcaacatcttttgagagcagcattggaccaccccacaatctcaa

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|-------------|-------------|----------|----|-----------|----|-------------------------------------------------------|
| <i>UCA1</i> | NR_015379.3 | HCR v3.0 | B1 | Alexa 546 | 1 | ctcctggaagccacaagattaggccgagagccgatcagacaaacaacctaca |
| | | | | | 2 | ccaaatggccatcccagcatgcttccaagcaggcttcatccgttctctgga |
| | | | | | 3 | aaaatacctaactggcacctttagctacataaaaaatgcaccctagacct |
| | | | | | 4 | catttatagcacaccaactgccgtccatctgcaggacctctccattgggtt |
| | | | | | 5 | ccagaccagcatccaggacaacaaaagtatggtttggttagagggt |
| | | | | | 6 | atgcctgattactgttttagagaactattttattaggcagttccaagct |
| | | | | | 7 | cacactgaagcagtcggagaaatatcagccctaccccagtaatccccaga |
| | | | | | 8 | gcacaaaggctttgtaaacagaggcgttcatgtggtttccttctcttc |
| | | | | | 9 | ctctaaaattttccacacccaaaacaaaaatctctgggtcaaaagtcta |
| | | | | | 10 | acaggaacctcaacccaaaggcagctctgatgaggtgtctaagataaaagtag |
| | | | | | 11 | ctcatcttaagacctgccgctataaaaaggattatcttgagacccta |
| | | | | | 12 | tcagaccgacctcacacctatgggaaaaaggtaatgtatcatcggttagc |
| | | | | | 13 | ccttaagctcctggcagcggccagccaaggccatgcttccatgcaacctcc |

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|---------------|-------------|----------|----|-----------|---|-----------------------------------------------------|
| <i>FILNC1</i> | NR_038399.2 | HCR v3.0 | B2 | Alexa 546 | 1 | aaagatcagacagtggtgacttgaataatgtccatgttatgattccaatct |
| | | | | | 2 | tattagtacgttgatagataaacgtgcttgatgccaatatagacacacaaa |
| | | | | | 3 | ggcgtataactaggttggtgcccagaataaagtataactgttgggtat |
| | | | | | 4 | acaaggactgtgtacttcattgaaccgtaagctgcatggttgccttggga |

5 gaatttcctgggagatatccagtacttttgggctgtaaacagcaaaacaaa
6 gcctttcttgaatatgctacgtctagtctactgaattcaagaagttat
7 gtgtgggaaagtaacttgatgtctttgcaaacttacaatttgcttcagtt
8 aacttaattcttctgtaagaactctaaacatctatgagaacatcttctc
9 attgattcccccttctccttagtaaaaaatcctgacgttttaggtga
10 accagaatatgatggctggagaatgtaagccatgtgcagaatgatacttac
11 gatttcagaaagagccaacaactcctacagatgatgacagttctcattctc
12 gcagcaataatcccaaaggaggtaaacatctaaaagaaaggaatgaaaaca
13 aattttgacaaaaattcatctcaggaatatgtttggaataattcttgct
14 tagatagggtttattatgctccatgtcaattatgcatgtttgtgtgat
15 tttttcgaaggtccttaaaaatgacggttttccttgcttctttt
16 tccttgatttaggtacgagattgtatctgtagctccagcagccatctt

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|--------------|-------------|----------|----|-----------|----|------------------------------------------------------|
| <i>NEAT1</i> | NR_028272.1 | HCR v3.0 | B3 | Alexa 546 | 1 | agggggaccacagtggggcaggctgcatggaaaatatccgagggtcccca |
| | | | | | 2 | ttgacctctgggagggcgccgctcttgcatactgagcagcccgggtgcgc |
| | | | | | 3 | ggaatagccgcagcagccctggaaatgatcaggaaggcaggcagtggtgc |
| | | | | | 4 | tgatgtggagtaaggcgccatcctcaccggtgactggtgcggcacctagca |
| | | | | | 5 | atgcttcatggaccgtggtttgttactatagtctcctcatggcgagcagat |
| | | | | | 6 | ggtaaaggtttcagatgctgcatcttctaaattgagcctccggtcacta |
| | | | | | 7 | gaagtcttagcctgatgaaataactggggcggtgaagagctgtaattt |
| | | | | | 8 | cattgtgttgctaaacgctgggagggtacaagtgggtcattcctaaatct |
| | | | | | 9 | ggagaagggaatgggggtacaccggtagtctctttgttcttctcgtt |
| | | | | | 10 | gtagtggtgtaagttgtgcttggaaagtgagaagttgcttagaaacttt |
| | | | | | 11 | tcagagggtttttgttggggtggtgttatcaagtgaattagtcact |
| | | | | | 12 | aagggaccactaagacgagattagatgggctcttctggattgtcctcat |
| | | | | | 13 | acaattactgtcgttgggatttagagtgtattagtcacgcatgtatggggaa |
| | | | | | 14 | actggtatgttctctgtatggtaagaactaattctgttacgtcatgtacat |
| | | | | | 15 | ttttttccagaccaagggtgtgaaccgcctggggatgaggcctggtctt |

16 ggaactgaacttagctcgacggggctgaccgctctggcccagggtggtatgt
 17 ccaacgctttattttccaggtggcagtgctccttttgacttttcttaggt
 18 gagtggctgttgagtcggtattgttgtaatggtggaggaagagaggcctt
 19 aaccgggagacatggagtcctggccagtgtgagtcctagcattgcaggagg
 20 agaccctggaggagagagcccctcaattgatgcctgcagattgaatttcc

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|-------------|-------------|----------|----|-----------|----|------------------------------------------------------|
| <i>GAS5</i> | NR_002578.3 | HCR v3.0 | B1 | Alexa 546 | 1 | CAGCCTCCCAgTggTCTTTgTAgACTgCCTgATggAgTCTCATggCACAAgA |
| | | | | | 2 | CTTAATggTTCTgCTCCTggTAACgTTTTATCCATggATgACTgCTTggg |
| | | | | | 3 | AAgCAAgCATgCAgCTTACTgCTTgAAAgggTCTTgCCTCACCCAAGCTAgA |
| | | | | | 4 | gTCTTTTCgAggTAggAgTCgACTCCTgTgAggTATggTgCTgggTgCAGAT |
| | | | | | 5 | AATAgCTACTgAAgTCCTAAAgCAAgCCTAACTCAAgCCATTggCACACA |
| | | | | | 6 | AggACATgAAgACAgTTCCTgTCATACCTTTTAAAggTATggAgAgTCggCT |
| | | | | | 7 | gCAGTggCCTTTgAAgCTTACTACAgCCTCAAActTCTgggCTCAAgTgATC |
| | | | | | 8 | gAAgAAATgCaggCAgACCTgTTATCCTAAACTAgggTTTTAATgACCACA |
| | | | | | 9 | ACTACACTgTgTggAgCAAgTTTTAAAgAAgCAAaggACTCAGaATTCATgA |
| | | | | | 10 | CATTAgACAgAAAgCTggAAgTTgAAATggTggAgTCCAActTgCCTggACC |
| | | | | | 11 | ATTAAACAgTgTCTCCAATTTAATAAATTTTTgCAATCCATCAAAAAAAAA |

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|-------------------|-------------|----------|----|-----------|---|------------------------------------------------------|
| <i>CDKN2B-AS1</i> | NR_003529.3 | HCR v3.0 | B1 | Alexa 546 | 1 | AgCTAAgTgTCCCTTTTgATgAgAAgAATAAgCCTCATTCTgATTCAACAgC |
| | | | | | 2 | TTCTggTgCTgCTCgCgTCCCCgCTCCCCTATTCCCCTATTTTATTCTgg |
| | | | | | 3 | CTTCACTgATATCCAAAgCATgAAggACACACCAgggAAAAACATAgACCTA |
| | | | | | 4 | TgCCATTTgAATCTTTgCTTCTTTCTAggTTTgACAATgAgCCTATCATATA |
| | | | | | 5 | ACTCATggCACATATCCATCTATCATCTgCAggggATCTgCTCACTgAAgTC |
| | | | | | 6 | ATgTCAgTTTTgAACTAAAAGCCgCTCCgCTCCTCTTCTAgATTTggAAAAC |
| | | | | | 7 | gCgAAATTAACCTAAACCgCTgCACgCCTCTgACgCgACATCTggACACggC |
| | | | | | 8 | TgCCACgACATTTCAAaggATTCCAAGAgAgAATATTggTgTCCATgCTgTg |
| | | | | | 9 | gATTCTCAgCTCCTCTCATCTgATCTCCgTCCTggCCCCATgACTTCTT |

10 TTCCTgCAGggATTCCCTCTACAAAATTA AAAACACTgggCATgTggAAATA
 11 AATTTgAgCTCATgTACTTAACCACTggACTACCTgCCTgCCCTgTCgAggA
 12 AAgCATCACTgTTAggTgTgCTggAATCCTTTCCCGAgTCAgTACTgCTTTC
 13 gAAgAAAACcggggAgATCTATTTggAATgTATCTAACTCCAAgAAACCAT
 14 gATggAggCCTTTTTATTTgCCACAAAACCACTggTgACgTTgCCTgTggCC
 15 TggAgAACTTCAGTAgAggAAgTggCAggAATTTgggAATgAggAgCACAgT
 16 TTAAACTggggCCATTCATATgAgAgTTTAAgAACTCAgACCAgTgACTTAg
 17 gTAgATTCACCATAAgTTAgCTCAGAgCAATTCAGTgCAAgTATggTCTgT
 18 gAggCCTTTgCAGCTTTCTgCTACATggAggCTAgggCCAgAgTCAAgATTT
 19 ATgAggCTgAgAgCATgggAgATACTAATgTgTgTTTCCTTgTgAgCTACTg
 20 CCATAgTgAACATgTAATgCTTACCTAgTgCCAgATgCTgTCTAggCATTTT

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|---------------|-------------|----------|----|-----------|----|--------------------------------------------------------|
| <i>PTENP1</i> | NR_023917.1 | HCR v3.0 | B2 | Alexa 546 | 1 | ACAgAAATTA AACTATgCAAAAATACTATTAATAATgATgTTggATCATTAC |
| | | | | | 2 | gggTTCgAATAggTATgTCATCAGAgATCATATAggAATAACCAATAAgCAA |
| | | | | | 3 | TCggACgTCATCAAAAATAAAAAATggTTTATCTTCAAAGTCACCTgTTAAgA |
| | | | | | 4 | gAgATgACACTACACATTTgCCA gAATgATgATTATTA AAAAAGACCAAgTA |
| | | | | | 5 | gAAATAgCCAATTCAGAAAACATTTTACAAGTTTTCTTTgTTTTTgTTTTTA |
| | | | | | 6 | CATAgAAgACAAACATCAgAAATAAACCCATCCACTATggTAAACTCATTTT |
| | | | | | 7 | ATgAgAAgACAAATCATAAAgCAGggAgAAATTTTTgAAA gTCATgTATCTg |
| | | | | | 8 | AAA ACTATgAAATTTCTAgAAgAAgACAgAAAAAAAATTATgACTTTggCTT |
| | | | | | 9 | TTATTATACCCTTACCCTATgACTCAGTAATTCACCTTCTAgATACCTACCA |
| | | | | | 10 | CACACCATACCCCAAATTA ACTCAgAACATggCATAACCAAATATAAgAg |

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|------------------|-------------|----------|----|-----------|---|------------------------------------------------------|
| <i>HIF1A-AS1</i> | NR_047116.1 | HCR v3.0 | B2 | Alexa 546 | 1 | gAAggAAA gACTACAgTCAACTgTCAATTggTTgATCACCCggATTTTATC |
| | | | | | 2 | CACCTTAgCCTATggTTgTTCATCTCgTCTCTgCCTATggCCCATTgACTCC |
| | | | | | 3 | gATCCCAgCTCCATTCTCggTACTTTACgCACCTgCTTCCA gTACCCCAA |
| | | | | | 4 | AAATggCCA gACCCA gATgTTAAAAATgTgTTCCTTgCTCTTCTgCCCTA |
| | | | | | 5 | AAgggCTgTTCCATgTTTAggggATgAATgCCgCTgAgAgTATTAgCAAAA |

6 TgCATgTgggCATCCATAgACATATTCTTAAATggCTTAaggACTTggAAAC
7 CCTCTaggAAACCTgAAACTTgAATgTTggTCCACTAgggAgAAgAAATgTT
8 CgCCgCCggCgCCCTCCATggTgAATCggTCCCgCgATgTCTTCACggCgg
9 CATgTgTCATTgAgTCTgAggAAgATAACTgAgACATACaggTATTTCTCAT
10 gAAgATAAAATAgCTgAATgAATTATCCCCgCTCCAgAACgCAgAggAAAAA
11 AgAAgAATATATATAgCAgTAACTgTCAgCTggCgAAAAggAggAAAATTC

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|------------------|-------------|----------|----|-----------|----|--------------------------------------------------------|
| <i>HIF1A-AS2</i> | NR_045406.1 | HCR v3.0 | B2 | Alexa 546 | 1 | TATTATTTAACATgACATTTAgggACTCAACATACATTAaggTgATggCACT |
| | | | | | 2 | TgCTCAAAATATCTTTATACCAACAgggTAggCagAACATTTAggTTTAATA |
| | | | | | 3 | CCAAATTTgTTCTAAgTTTgACTTTAgAgTCAggAAACTTAAgCTTACATTT |
| | | | | | 4 | ATTTATTAATCTgTTAATgggAACAgATTAgAAATCTTCAgAgAAgCTCTAg |
| | | | | | 5 | AgTTACACAATATTAgCATAAACTCCACAACACTACATAgggTATTgTTTTCT |
| | | | | | 6 | TgTAAATggCTTTACCCATTTAAATAATAAACCATACAgCATTTAAgAATCA |
| | | | | | 7 | ATTATATgATTAACAATgTCATgTTCCAaggTTTAACAATTTTCATAggCCAAA |
| | | | | | 8 | TTTTgTTCAgTATATATACCTCaggTAAaggACCTAaggCTCTggCACTTC |
| | | | | | 9 | gATAAATgTAGAAATAACCgTACCATgTAATTTTCATAAgTgCTTAAATTg |
| | | | | | 10 | TTATCCAAATAAATgCCACATACCTTCTAgATATATgCATATCTTTCTATAT |
| | | | | | 11 | AACTgCCTATgATCATgATgAAAaggTACTgCCTTCTTACAAAAATTATATT |
| | | | | | 12 | ggTCTgCCATCTATTACTTTTTAAAgCTTgggCAAATTATTCATTTgAAgTCT |
| | | | | | 13 | AAAACAATACAgTTagTgTTagATCCAACCACAAAgAgCAAAAggAATgAAA |
| | | | | | 14 | TgCTggTATTTTTTAAgAAAAATATATTgTgCAATTgTggCTACCACgTACTg |
| | | | | | 15 | CATCTTCTTAAAAATAATTCgAAAAaggATAAACTCCCTAgCCAAAAATAA |
| | | | | | 16 | TgTCCTCCATTgTAAgATAAAAAgAgCTACCTAAgAgATCTgTggCTCAGTT |
| | | | | | 17 | TTTgTAACATTgTgACTATAATgCTgAgAACTgCTTCACTCATCCATTCAT |
| | | | | | 18 | CATAAAAgCTgATCAAaggggCCTggTCCACAgAAgATgTTTATTTgATgTA |
| | | | | | 19 | TgAgCTggCAAAGTgACTATAgAAACATCAgATgATTTCTCTgAATTgAgAA |
| | | | | | 20 | ACCAAAAACTgAgAAAATgAgCTgTCTgTgATCCAgCATTTAAgAACATAC |

| | | | | | | |
|-------------|-------------|----------|----|-----------|----|-------------------------------------------------------|
| <i>MEG3</i> | NR_002766.2 | HCR v3.0 | B3 | Alexa 546 | 1 | ggCgCTgTgATgCggTTCCAAAgCACAgggCTTggCgCACCCCACTgTgCTC |
| | | | | | 2 | CTgAATggAAggATCCCTTTgggAAATTCTCAggAgggggACCTgggCCAAG |
| | | | | | 3 | TTAAATgAgATAAAAgAggCCTCAggCaggATCTggCATAgAggAggTgATC |
| | | | | | 4 | gAAgAACTgCggATggAAgCTgCggAAgAggCCCTgATggggCCCACCATCC |
| | | | | | 5 | gTCTTACTTgTCTTATTTATTCTCCAACAgCACTCCAaggCAgCCCTTgTCCA |
| | | | | | 6 | CCCgCCCTCTgACTgATggACgCCgCTgACCTggggTCAgACCCgTgggCTg |
| | | | | | 7 | CTTggCCAgCATCCTgCTggCAACTCCAaggCCCTgggTgggCTTCTggAAT |
| | | | | | 8 | CgggACAggCTggACCCAgAgACTCTggACCCggggCCTCCCTTgAgTAga |
| | | | | | 9 | CCCCTgCCCACCCCgCaggAACCTgAggCCTAggggAgCTgTTgAgCCTTC |
| | | | | | 10 | CgggTCTCTCCTCaggATgACATCATCCgTCCACCTCCTTgTCTTCAaggA |
| | | | | | 11 | TCCTTCCTCACCTCCAATTTCTTCAACCACTgCTTCTgACTGCTCT |
| | | | | | 12 | gACCCAAgTCTTCTCTCTggCgggCCTCTCgTCTCCTCCTggTTTgggCgg |
| | | | | | 13 | ACCTCCTCTCCATgCTgAgCTgCTgCCAaggggCCTgCTgCCCATCTACACC |
| | | | | | 14 | ACgAgggCACTAggAgCACggTTTCCTggATCCCACCAACATACAAAgCagC |
| | | | | | 15 | AgCCAgCTgTCCCTTTACCTAAAgACTTAAACCAATgCCCTAgTgAggggg |
| | | | | | 16 | TTgggCATTAAgCCCTgACCTTTgCTATgCTCATACTTTgACTCTATgAgTA |
| | | | | | 17 | TTCTATAAgTCTTTgCTTgTgTTCACCTgCTAgCAAActggAgTgTTTCCC |
| | | | | | 18 | CCCAAgggggTgTCAgTCTTTgTCgACTgACTCTgTCATCACCTTATgATg |
| | | | | | 19 | gCATgCTACTgAATCACAAAggCACgCCCgACCTCTCTgAAgATCTTCCTA |
| | | | | | 20 | CAAATgTTTgTTgAAAaggTTTgACAaggTCAgTCCCTTCCCACCCCTCTTgC |

| | | | | | | |
|--------------|-------------|----------|----|-----------|---|-------------------------------------------------------|
| <i>PCAT1</i> | NR_045262.2 | HCR v3.0 | B3 | Alexa 546 | 1 | ACACATggATATTggATATCTgCATAggCagCTTgCTCCACgCCggTgCCTA |
| | | | | | 2 | gAAgAAAaggAACCTCTTgAgTACAAAgAgCTACCTATggTggTCTggAgC |
| | | | | | 3 | gAggACCACAgCATCAAaggATATAAgATgCATAgCCAActgAggAACCTgA |
| | | | | | 4 | AATTAAAgAgATCCACAgTAAgTCACACTTAACTggCACTTgTggAAgCCC |
| | | | | | 5 | ACAggCCAAGCTACAgggAgAAaggAgATgACgCAAaggAACCTAACTggAC |
| | | | | | 6 | CCTTACAATTTggTgAgACAAGAAATgTATgAATTCCCACAggTCAAATTATA |
| | | | | | 7 | AAggAACATTCACATCTTTCTCCCATgTgCCTCTAAgTgCCAgTgCAggCC |

8 TAATCACTAgAAGTgAgAAGAgAAATCTATTggAACCTCCCAgATAATgCC
9 TgTgCAgATgggAAGgAAAgAAAgTggCAAggAggCAGAgAAAgCATCTgT
10 CAAggCCTgAAggAgAgCTgACATAggCACCCCAgAgAgCCAgaATCTggAT
11 CATCTTAATAAggCCATgAACACCAgTggAgAAGAggCAGAAACACCAATgg
12 gggTCAAaggTgCgCAGATACATAAgCCATggAAATAATATCAGACAAAA

Supplementary Table 2. Reference list of studies which showed the association between expression of lncRNA and cancer survival.

| lncRNA | Reference |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>NEAT1</i> | Ning L, Li Z, Wei D et al. lncRNA, NEAT1 is a prognosis biomarker and regulates cancer progression via epithelial-mesenchymal transition in clear cell renal cell carcinoma. <i>Cancer Biomark</i> 2017; 19: 75-83. |
| <i>HOTAIR</i> | Katayama H, Tamai K, Shibuya R et al. Long non-coding RNA HOTAIR promotes cell migration by upregulating insulin growth factor-binding protein 2 in renal cell carcinoma. <i>Sci Rep</i> 2017; 7: 12016. |
| <i>TUG1</i> | Wang PQ, Wu YX, Zhong XD et al. Prognostic significance of overexpressed long non-coding RNA TUG1 in patients with clear cell renal cell carcinoma. <i>Eur Rev Med Pharmacol Sci</i> 2017; 21: 82-86. |
| <i>DLEU2</i> | Qi-Dong X, Yang X, Lu JL et al. Development and Validation of a Nine-Redox-Related Long Noncoding RNA Signature in Renal Clear Cell Carcinoma. <i>Oxid Med Cell Longev</i> 2020; 2020: 6634247. |
| <i>MALAT1</i> | Ye Y, Zhang F, Chen Q et al. lncRNA MALAT1 modified progression of clear cell kidney carcinoma (KIRC) by regulation of miR-194-5p/ACVR2B signaling. <i>Mol Carcinog</i> 2019; 58: 279-292. |
| <i>FILNC</i> | Xiao ZD, Han L, Lee H et al. Energy stress-induced lncRNA FILNC1 represses c-Myc-mediated energy metabolism and inhibits renal tumor development. <i>Nat Commun</i> 2017; 8: 783. |
| <i>PVT1</i> | Ren Y, Huang W, Weng G et al. lncRNA PVT1 promotes proliferation, invasion and epithelial-mesenchymal transition of renal cell carcinoma cells through downregulation of miR-16-5p. <i>Onco Targets Ther</i> 2019; 12: 2563-2575. |
| <i>H19</i> | Wang L, Cai Y, Zhao X et al. Down-regulated long non-coding RNA H19 inhibits carcinogenesis of renal cell carcinoma. <i>Neoplasma</i> 2015; 62: 412-418. |
| <i>UCA1</i> | Liu Q, Li Y, Lv W et al. UCA1 promotes cell proliferation and invasion and inhibits apoptosis through regulation of the miR129-SOX4 pathway in renal cell carcinoma. <i>Onco Targets Ther</i> 2018; 11: 2475-2487. |
| <i>CDKN2B-AS1</i> | Xie X, Lin J, Fan X et al. lncRNA CDKN2B-AS1 stabilized by IGF2BP3 drives the malignancy of renal clear cell carcinoma through epigenetically activating NUF2 transcription. <i>Cell Death Dis</i> 2021; 12: 201. |
| <i>PCAT1</i> | Wang R, Zheng B, Liu H, Wan X. Long non-coding RNA PCAT1 drives clear cell renal cell carcinoma by upregulating YAP via sponging miR-656 and miR-539. <i>Cell Cycle</i> 2020; 19: 1122-1131. |
| <i>PTENP1</i> | Yu G, Yao W, Gumireddy K et al. Pseudogene PTENP1 functions as a competing endogenous RNA to suppress clear-cell renal cell carcinoma progression. <i>Mol Cancer Ther</i> 2014; 13: 3086-3097. |
| <i>GAS5</i> | Yang X, Xie Z, Lei X, Gan R. Long non-coding RNA GAS5 in human cancer. <i>Oncol Lett</i> 2020; 20: 2587-2594. |
| <i>MEG3</i> | He Y, Luo Y, Liang B et al. Potential applications of MEG3 in cancer diagnosis and prognosis. <i>Oncotarget</i> 2017; 8: 73282-73295. |
| <i>HIF1A-AS1</i> | Gong W, Tian M, Qiu H, Yang Z. Elevated serum level of lncRNA-HIF1A-AS1 as a novel diagnostic predictor for worse prognosis in colorectal carcinoma. <i>Cancer Biomark</i> 2017; 20: 417-424. |
| <i>HIF1A-AS2</i> | Zhang W, Liu K, Pei Y et al. Long Noncoding RNA HIF1A-AS2 Promotes Non-Small Cell Lung Cancer Progression by the miR-153-5p/S100A14 Axis. <i>Onco Targets Ther</i> 2020; 13: 8715-8722. |