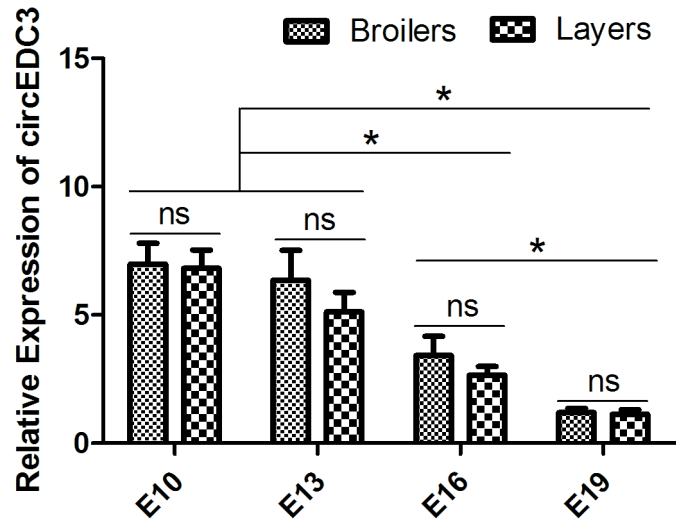


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Appendix A Expression pattern of circEDC3 in different lines and developing phases in chicken. qPCR results showing the significant differential expressions of circEDC3 in different lines and developing phases in chicken. The Student's t-test was

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used to compare expression levels among different groups. *p < 0.05.

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Appendix B Composition and nutrient levels of the basal diet (air-dry basis) (g/kg)

| Ingredients | content | Nutrient levels^b | content |
|--------------------------|----------------|------------------------------------|----------------|
| Corn | 553 | ME (MJ/kg) | 12.13 |
| Soybean meal | 365.7 | CP | 205 |
| Admixture oil | 28 | Lys | 11.5 |
| Limestone | 13.1 | Met + Cys | 8.1 |
| CaHPO₄ | 12.6 | Ca | 9 |
| NaCl | 12.6 | TP | 5.7 |
| Premixa | 3 | | |
| 50% choline (50%) | 10 | | |
| Lys | 0.2 | | |
| Met | 2.4 | | |

a : The premix provided the following per kg of the diet: Cu 8 mg; Fe 90 mg; Zn 50 mg; Mn 80 mg; I 0.30 mg; Se 0.15 mg; vitamin A(Retinol) 10000 IU; vitamin D₃(Cholecalciferol) 2,100 IU; vitamin E(tocopherol) 14.97 IU; vitamin K₃(menaphthone) 0.6 mg; vitamin B₁(thiamine) 2.0 mg; vitamin B₂(Riboflavin) 4.0 ng; vitamin B₁₂(cyanocobalamin) 0.01 mg; nicotinic acid 30.0 mg; folic acid 0.6 mg; biotin 0.15 mg; D-pantothenic acid 11 mg; phytase 700 U.

b : Nutrient levels are calculated value.

Appendix C RNA oligonucleotides in this study.

| SiRNA | Sense Strands (5'→3') | Anti-Sense Strands (5'→3') |
|-----------------|------------------------------|-----------------------------------|
| circEDC3-siRNA1 | GAAUUCUGCACGGCAAUUGTT | CAAUUGCCGUGCAGAAUUCTT |
| circEDC3-siRNA2 | GCACGGCAAUUGUGUGCCATT | UGGCACACAAUUGCCGUGCTT |
| circEDC3-siRNA3 | UCUGCACGGCAAUUGUGUGTT | CACACAAUUGCCGUGCAGATT |
| NC siRNA | UUCUCCGAACGUGUCACGUTT | ACGUGACACGUUCGGAGAATT |

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Appendix D qPCR primers in this article

| Gene | Primer aequence (5'-3') | Product length |
|-------------|--|-----------------------|
| circEDC3 | F: CGGCACGATGAGAACAT R: ATCCACAGCGGACACT | 193 |
| CCND1 | F: CTCCTATCAATGCCTCACA R: TCTGCTTCGTCCTCTACA | 165 |
| CCND2 | F: GCACAACCTACTGACGATAG R: CTTACAGACCTCCAACAT | 125 |
| PCNA | F: AACACTCAGAGCAGAAGAC R: GCACAGGAGATGACAACA | 225 |
| CDK2 | F: CCAGAACCTCCTCATCAAC R: CAGATGTCCACAGCAGTC | 171 |
| Ki67 | F: GCAACAACAAGGAGGCTTCG R: TTCAGGTGCCATCCCGTAAC | 93 |
| MYOD | F: GCCGCCGATGACTTCTATGA R: CAGGTCCTCGAAGAAGTGCAT | 66 |
| MYOG | F: CGTGTGCCACAGCCAATG R: CCGCCGGAGAGAGACCTT | 63 |
| MYHC | F: GAAGGAGACCTCAACGAGATGG R: ATTCAGGTGTCCCAAGTCATCC | 138 |
| Caspase 3 | F: TTCAGGTGCCATCCCGTAAC R: TCCACTGTCTGCTTCAATACC | 186 |
| Caspase 8 | F: CCCTGAAGACAGTGCCATTT R: GGGTCGGCTGGTCATTTTAT | 106 |
| Caspase 9 | F: GCTTGTCCATCCCAGTCCAA R: CAGTCTGTGGTCGCTCTTGT | 95 |
| Bcl-2 | F: ATCGTCGCCTTCTTCGAGTT R: ATCCCATCCTCCGTTGTTCT | 150 |
| GAPDH | F: CCAGAACATCATCCCAGCGTC R: ACGGCAGGTCAGGTCAACAA | 136 |

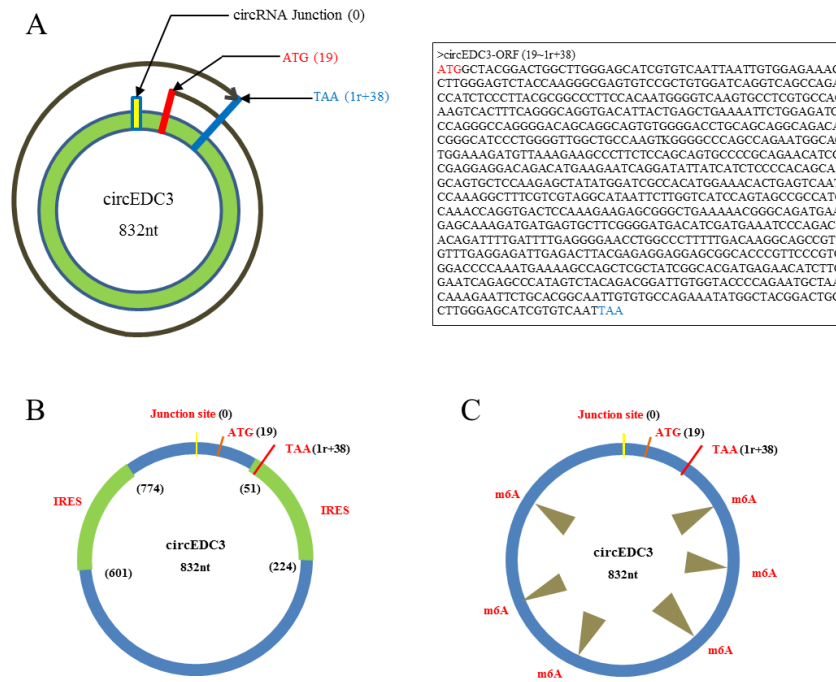
Appendix E Target miRNAs of circEDC3

| | mfe(kcal/mol) | Seed compete | Position |
|------------------|----------------------|---------------------|-----------------|
| gga-miR-103-2-5p | -29.4 | 7mer-m8 | 296 |
| gga-miR-107-5p | -26.9 | 7mer-m8 | 296 |
| gga-miR-1580 | -20.4 | 7mer-m8 | 310 |
| gga-miR-1592 | -24.1 | 7mer-m8 | 224 |
| gga-miR-1602 | -26.2 | 7mer-m8 | 740 |
| gga-miR-1626-5p | -23 | 7mer-m8 | 429 |
| gga-miR-1669 | -24.1 | 8mer | 761 |
| gga-miR-1680-5p | -28.4 | 7mer-m8 | 356 |
| gga-miR-1685-3p | -18.2 | 8mer | 180 |
| gga-miR-1685-5p | -23.4 | 8mer | 506 |
| gga-miR-1696 | -23.7 | 7mer-m8 | 396 |
| gga-miR-1710 | -21.4 | 8mer | 543 |
| gga-miR-1716 | -36.3 | 8mer | 334 |
| gga-miR-1721 | -23.9 | 7mer-m8 | 388 |
| gga-miR-1728-3p | -24.8 | 7mer-m8 | 316 |
| gga-miR-1737 | -29 | 7mer-m8 | 409 |
| gga-miR-1747-5p | -23.3 | 7mer-m8 | 113 |
| gga-miR-1783 | -24.5 | 7mer-m8 | 739 |
| gga-miR-1792 | -22.8 | 7mer-m8 | 697 |
| gga-miR-1795 | -18.6 | 7mer-m8 | 745 |
| gga-miR-1802 | -21.8 | 7mer-m8 | 145 |
| gga-miR-187-3p | -29.2 | 7mer-m8 | 252 |
| gga-miR-18a-3p | -30.2 | 7mer-m8 | 166 |
| gga-miR-2131-5p | -18.1 | 7mer-m8 | 790 |
| gga-miR-222b-5p | -26.4 | 7mer-m8 | 179 |
| gga-miR-24-5p | -28.2 | 8mer | 455 |
| gga-miR-458a-3p | -27.7 | 8mer | 416 |
| gga-miR-551-5p | -16.8 | 7mer-m8 | 589 |
| gga-miR-6552-5p | -28.4 | 8mer | 342 |
| gga-miR-6555-3p | -23.2 | 7mer-m8 | 420 |
| gga-miR-6561-5p | -31.1 | 7mer-m8 | 293 |
| gga-miR-6573-3p | -31.1 | 7mer-m8 | 139 |
| gga-miR-6574-3p | -26.3 | 7mer-m8 | 757 |
| gga-miR-6608-3p | -29.4 | 7mer-m8 | 399 |

| | | | |
|-----------------|-------|---------|-----|
| gga-miR-6615-3p | -21.5 | 7mer-m8 | 294 |
| gga-miR-6621-5p | -24.4 | 7mer-m8 | 258 |
| gga-miR-6689-3p | -20.9 | 7mer-m8 | 485 |
| gga-miR-6697-5p | -18.2 | 7mer-m8 | 472 |
| gga-miR-7456-3p | -27.1 | 7mer-m8 | 93 |

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Appendix F Schematic diagrams of ORF, IRES, and m⁶A in circEDC3. (A) The Schematic diagram of ORF in circEDC3. (B) The Schematic diagram of IRES in circEDC3. (C) The Schematic diagram of m⁶A in circEDC3.