**Supplementary data**

**Supplemental Table 1**

**Ingredient and chemical composition of the gestation diets**

|  |  |
| --- | --- |
| **Item** | **Gestation**  |
| Ingredient, % |  |
| Corn | 67.0 |
| Soybean meal, dehulled | 14.0 |
| Wheat bran  | 15.6 |
| Fish meal  | 0.5 |
| Soybean oil | - |
| Dicalcium phosphate  | 1.3 |
| Limestone  | 0.8 |
| L-Lysine HCl (78%)  | - |
| Salt  | 0.38 |
| Premix 1 | 0.52 |
| Total  | 100 |
| Calculated composition |  |
| GE, MJ/kg  | 13.27 |
| DM, %  | 88.7 |
| CP, % | 13.6 |
| Ca, %  | 0.95 |
| Total P, %  | 0.61 |
| Analyzed composition |  |
| DM, %  | 87.3 |
| CP, % | 12.5 |
| Ash, %  | 5.4 |
| EE, % | 1.7 |

1Premix supplied the following per kilogram of diet: Zn, 90.31 mg as Zn oxide; Mn, 18.01 mg as Mn sulfate; Fe, 53.96 mg as ferrous sulfate; Cu, 5.40 mg as Cu sulfate; Se, 0.30 mg as Na selenite; I, 2.20 mg as K iodate; niacin, 55.07 mg; pantothenic acid, 33.04 mg; vitamin A, 11,013 IU; vitamin D, 2,753 IU; vitamin E, 55 IU; riboflavin, 9.9 mg; vitamin K, 4.41 mg; vitamin B 12, 0.06 mg; choline, 495 mg; pyridoxine, 1.65 mg; folic acid, 1.65 mg; thiamine, 1.01 mg.

**Supplementary data**

**Supplemental Table 2**

**List of primers used for Q-PCR analysis**

|  |  |  |
| --- | --- | --- |
|  | **Forward primer (5’ to 3’ direction)** | **Reverse primer (5’ to 3’ direction)** |
| PGC-1α | ATCGCAGTCGCAACATTTACA | TTGGTTGGCTTTATGAGGAGG |
| FOXO1 | GCCGTGCTACTCGTTTGC | CTTGGGTCAGGCGGTTC |
| PEPCK | ATGCCTCCTCAGCTGCATAATGGTC | CTTTCGATCCTGGCCACATC |
| G6Pase | GAGGAAGGAATGAACATTCT | TACGGGCGTTGTCCAAACAG |
| PFK | CTACAGTCTCCAACAATGTCCC | CCACCCATAGTCTCAATGATAAAC |
| PK | AGTAGCATGGCGAGAGGATG | GGCTTATGCAGCCTGATTGT |
| GAPDH | TCTCTGGCAAAGTCCAAGTG | CTTGAAGTGTCCGTGTGTAGAA |

PGC-1α, peroxisome proliferative activated receptor-g co-activator 1; FOXO1, forkhead box O1; PEPCK, Phosphoenolpyruvate carboxykinase; G6Pase, glucose-6-phosphatase; PFK, phosphofructokinase; PK, pyruvate kinase; GAPDH, glyceraldehyde-3-phosphate dehydrogenase;

**Supplementary data**

**Supplemental Table 3** Name, type, dilution, and source of primary antibodies1

|  |  |  |  |
| --- | --- | --- | --- |
| Antibody | Isotype | Dilution | Source |
| PCAF | Rabbit | 1:1000 | Cell Signaling Technology ( Boston, MA, USA ) |
| PGC-1α | Rabbit | 1:2000 | Cell Signaling Technology ( Boston, MA, USA ) |
| FOXO1 | Rabbit | 1:1000 | Cell Signaling Technology ( Boston, MA, USA ) |
| PEPCK | Rabbit | 1:1000 | Abcam ( Cambridge, MA, USA) |
| G6Pase | Rabbit | 1:500 | Santa Cruz (Santa Cruz, CA, USA) |
| ACTB | Rabbit | 1:2000 | Cell Signaling Technology ( Boston, MA, USA ) |
| Secondary Antibody |
| HRP labelled Antibody | Goat anti rabbit | 1:10,000 | Santa Cruz (Santa Cruz, CA, USA) |