**Milk replacers supplemented with either L-arginine or L-carnitine potentially improve muscle maturation of early reared low birth weight piglets from hyperprolific sows[[1]](#footnote-1)**

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Supplementary Table 1 *Forward and -reverse primers of myogenesis- and proteasome related genes and reference genes*

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| --- | --- | --- | --- | --- | --- |
| Item | Accession no. | Forward primer (from 5′ to 3′) | Reverse primer (from 5′ to 3′) | Amplicon size, bp | Annealing Temp, °C |
| Gene1 |  | | |  |  |
| Myogenesis related genes |  | | |  |  |
| IGF2 | NM\_213883 | TGGCATCGTGGAAGAGTG | AGGTGTCATAGCGGAAGAAC | 164 | 57 |
| IGFBP5 | NM\_214099 | GTGTACCTGCCCAACTGTGA | AAGCTGTGGCACTGGAAGTC | 158 | 60 |
| MYOD1 | NM\_001002824 | GGTGACTCAGACGCATCCA | ATAGGTGCCGTCGTAGCAGT | 108 | 60 |
| PRKAA2 | NM\_214266 | CCCCTGAAACGAGCAACTATC | CACACTTCTTTCACAGCCTCAT | 134 | 59 |
| Proteasome related genes |  | | |  |  |
| Atrogin-1 (FBXO32) | NM\_001044588 | TCACAGCTCACATCCCTGAG | GACTTGCCGACTCTCTGGAC | 167 | 60 |
| E214k | AK240614 | CCAAATAAACCGCCAACTGT | GTTCAACAATGGCCGAAACT | 250 | 57 |
| TRIM63 (MuRF1) | NM\_001184756 | ATGGAGAACCTGGAGAAGCA | ACGGTCCATGATCACCTCAT | 219 | 58 |
| UBB (Ubiquitin) | EF688558 | GGTGGCTGCTAATTCTCCAG | TTTTGGACAGGTTCAGCTATTAC | 127 | 58 |
| PSMA1 | AY609452 | CCGGAGGCCGTGACTAGGCT | GCATCGGCAGTAAGTCCCGCA | 274 | 67 |
| Reference genes |  | | |  |  |
| RPL4 (LOC100038029) | DQ845176 | CAAGAGTAACTACAACCTTC | GAACTCTACGATGAATCTTC | 122 | 51 |
| TBP | DQ178129 | GATGGACGTTCGGTTTAGG | AGCAGCACAGTACGAGCAA | 124 | 58 |

1 IGF2 = Insulin-like growth factor 2; IGFBP5 = Insulin-like growth factor binding protein 5; MYOD1 = Myogenic differentiation 1; PRKAA2 = Protein kinase, AMP-activated, alpha 2 catalytic subunit; Atrogin-1 (FBXO32) = F-box protein 32; E214k = Ubiquitin-conjugating enzyme E2B; MuRF1 (TRIM63) = Tripartite motif-containing 63; UBB (Ubiquitin) = Ubiquitin B; PSMA1 = Proteasome (prosome, macropain) subunit, alpha type, 1; RPL4 (LOC100038029) = Ribosomal protein L4; TBP = TATA box binding protein.

1. [↑](#footnote-ref-1)