**Table S4: Comparison of mRNA expression levels between AT depots at t0, t1 and t2.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Time point | Retroperitoneal AT | | Mesocolonial AT | | Sc AT of nuchal crest | | Sc AT of the tail head | | P\* |
|  |  |  | |  | |  | |  | |  |
| Ponies |  |  | |  | |  | |  | |  |
| CD68 | t0 | 0.10 | (0.08/0.25)ab | 0.25 | (0.19/0.92)a | 0.05 | (0.04/0.06)b | 0.05 | (0.03/0.07)b | 0.001 |
|  | t1 | 0.51 | (0.30/0.84) | 0.21 | (0.05/0.93) | 0.12 | (0.06/0.23) | 0.44 | (0.18/0.69) | 0.048 |
|  | t2 | 0.75 | (0.18/2.30) | 1.04 | (0.15/2.48) | 0.21 | (0.08/0.63) | 0.89 | (0.21/1.09) | 0.326 |
| IL-1β | t0 | 1.68 | (1.30/2.15) | 3.07 | (1.28/3.16) | 4.86 | (1.61/7.23) | 2.42 | (1.51/2.72) | 0.112 |
|  | t1 | 0.92 | (0.60/1.76) | 1.01 | (0.78/1.79) | 2.39 | (1.67/3.39) | 1.90 | (1.36/2.44) | 0.045 |
|  | t2 | 0.70 | (0.41/0.83)ac | 0.58 | (0.39/0.70)a | 1.77 | (1.35/2.99)b | 1.31 | (1.16/1.71)bc | 0.000 |
| IL-6 | t0 | 1.04 | (0.90/1.57)a | 1.56 | (1.20/2.02)ab | 2.45 | (1.79/3.88)b | 1.71 | (1.46/2.97)ab | 0.034 |
|  | t1 | 0.65 | (0.48/1.28)a | 0.99 | (0.68/1.37)ab | 1.86 | (1.61/2.13)b | 1.49 | (1.04/1.97)ab | 0.019 |
|  | t2 | 0.59 | (0.40/0.65)ac | 0.48 | (0.37/0.58)a | 1.25 | (0.79/1.93)b | 1.05 | (0.84/1.19)bc | 0.000 |
| TNFα | t0 | 1.06 | (0.80/1.46)a | 1.67 | (1.33/1.78)ab | 2.20 | (1.68/3.55)b | 1.79 | (1.60/2.41)ab | 0.020 |
|  | t1 | 0.59 | (0.40/1.05) | 0.81 | 0.54/1.05) | 1.36 | (1.33/1.83) | 1.47 | (1.18/1.81) | 0.045 |
|  | t2 | 0.49 | (0.32/0.52)a | 0.46 | (0.35/0.56)a | 0.93 | (0.56/1.69)b | 0.85 | (0.75/1.05)b | 0.001 |
| FABP4 | t0 | 0.56 | (0.37/0.91)a | 0.58 | (0.23/1.71)a | 0.03 | (0.01/0.07)b | 0.05 | (0.01/0.08)b | 0.000 |
|  | t1 | 1.28 | (0.89/1.49)a | 1.24 | (1.15/2.38)a | 0.18 | (0.14/0.54)b | 0.72 | (0.50/1.13)ab | 0.001 |
|  | t2 | 0.82 | (0.50/1.46)a | 1.23 | (0.31/1.83)ab | 0.24 | (0.18/0.37)b | 0.60 | (0.29/1.14)ab | 0.021 |
| LPL | t0 | 1.01 | (0.53/2.75)a | 0.89 | (0.64/2.57)a | 0.02 | (0.01/0.05)b | 0.03 | (0.02/0.5)b | 0.000 |
|  | t1 | 0.78 | (0.55/1.28)a | 0.99 | (0.68/1.69)a | 0.09 | (0.45/0.27)b | 0.57 | (0.20/0.84)ab | 0.001 |
|  | t2 | 0.86 | (0.65/0.90)a | 0.82 | (0.65/1.28)a | 0.11 | (0.10/0.16)b | 0.64 | (0.27/1.01)a | 0.000 |
|  |  |  |  |  |  |  |  |  |  |  |
| Horses |  |  |  |  |  |  |  |  |  |  |
| CD68 | t0 | 0.13 | (0.10/0.16)ab | 0.19 | (0.16/0.23)a | 0.08 | (0.07/0.09)b | 0.14 | (0.11/0.16)ab | 0.002 |
|  | t1 | 1.18 | (0.56/1.96)a | 0.51 | (0.27/0.66)ab | 0.19 | (0.15/0.30)b | 0.46 | (0.40/1.21)ab | 0.008 |
|  | t2 | 0.65 | (0.41/1.52)a | 1.09 | (0.29/3.72)a | 0.21 | (0.17/0.38)b | 0.32 | (0.20/0.86)ab | 0.007 |
| IL-1β | t0 | 1.26 | (1.07/1.48) | 1.90 | (1.48/2.79) | 2.00 | (1.19/2.42) | 1.49 | (1.09/2.50) | 0.188 |
|  | t1 | 0.89 | (0.76/1.74)a | 1.17 | (1.06/1.43)a | 2.96 | (2.27/3.12)b | 2.13 | (1.29/3.60)ab | 0.002 |
|  | t2 | 0.67 | (0.49/0.71)a | 0.99 | (0.80/1.43)ab | 1.40 | (1.21/1.51)b | 1.27 | (1.16/1.44)b | 0.003 |
| IL-6 | t0 | 0.76 | (0.59/0.94)a | 1.04 | (0.97/1.36)ab | 1.37 | (1.25/1.78)b | 1.03 | (0.84/1.70)ab | 0.016 |
|  | t1 | 0.80 | (0.65/1.30)a | 0.97 | (0.73/1.24)a | 2.15 | (1.78/2.71)b | 1.56 | (1.23/2.49)ab | 0.001 |
|  | t2 | 0.48 | (0.43/0.56)a | 0.77 | (0.59/0.90)ab | 1.02 | (0.94/1.13)b | 0.82 | (0.76/1.26)b | 0.001 |
| TNFα | t0 | 0.74 | (0.52/0.84)a | 1.02 | 0.89/1.85)ab | 1.24 | (0.97/1.53)ab | 1.30 | (0.90/1.88)b | 0.017 |
|  | t1 | 0.74 | (0.53/1.04)a | 0.59 | (0.56/0.99)a | 1.78 | (1.42/2.06)b | 1.50 | (1.19/2.10)ab | 0.001 |
|  | t2 | 0.39 | (0.29/0.47)a | 0.74 | (0.48/0.92)ab | 0.84 | (0.76/0.90)b | 0.81 | (0.76/0.92)b | 0.017 |
| FABP4 | t0 | 1.07 | (0.93/1.50)a | 1.59 | (1.44/1.90)a | 0.33 | (0.12/0.45)b | 1.06 | (0.71/1.82)a | 0.000 |
|  | t1 | 0.88 | (0.76/0.95)a | 1.53 | (1.48/1.77)b | 0.72 | (0.41/1.05)a | 1.25 | (0.79/1.31)ab | 0.002 |
|  | t2 | 0.63 | (0.89/1.00) | 1.07 | (0.77/1.41) | 0.65 | (0.39/0.70) | 1.12 | (0.67/2.04) | 0.059 |
| LPL | t0 | 1.06 | (0.93/1.15)ab | 1.19 | (1.06/1.48)a | 0.11 | (0.10/0.25)b | 1.12 | (0.94/2.05)a | 0.002 |
|  | t1 | 1.19 | (1.04/1.68)ab | 1.31 | (1.10/2.58)a | 0.57 | (0.49/0.69)b | 1.22 | (1.03/1.29)ab | 0.004 |
|  | t2 | 0.85 | (0.67/1.12)ab | 1.33 | (1.10/1.55)a | 0.36 | (0.24/0.50)b | 0.93 | (0.76/1.41)a | 0.000 |
|  |  |  |  |  |  |  |  |  |  |  |

t0 = basal measurements, t1 = after one year and t2 = after two ears of hypercaloric diet.Data are expressed as median (25./75. ‰);\*P-value of Kruskal-Wallis-ANOVA; a-bDifferent superscript letters indicate significant (P < 0.05) differences within rows with post hoc Bonferroni correction.