

Table S7. Associations between haplotypes of *CAST* and fatty acid composition in longissimus thoracis muscles in Sonid sheep.

| Fatty acid composition | Genotype of combination (Number) | | |
|------------------------|----------------------------------|-------------------------|-------------------------|
| | H1H1 (238) (GGCCGGCC) | H1H2 (64) (GCCTGACT) | H1H3 (35) (GGCTGGCC) |
| C4:0 | 1.85 ± 0.08 | 1.91 ± 0.19 | 2.01 ± 0.24 |
| C6:0 | 0.85 ± 0.07 | 0.72 ± 0.14 | 0.68 ± 0.16 |
| C10:0 | 0.31 ± 0.01 | 0.38 ± 0.03 | 0.30 ± 0.04 |
| C11:0 | 0.46 ± 0.01 | 0.47 ± 0.02 | 0.44 ± 0.04 |
| C13:0 | 0.64 ± 0.05 | 0.60 ± 0.10 | 0.62 ± 0.06 |
| C14:0 | 1.55 ± 0.04 | 1.39 ± 0.07 | 1.53 ± 0.09 |
| C15:0 | 0.76 ± 0.03 | 0.85 ± 0.06 | 0.77 ± 0.07 |
| C16:0 | 17.04 ± 0.23 | 16.29 ± 0.40 | 16.72 ± 0.47 |
| C17:0 | 0.69 ± 0.12 | 0.66 ± 0.04 | 0.79 ± 0.21 |
| C18:0 | 9.21 ± 0.13 | 8.58 ± 0.24 | 9.23 ± 0.33 |
| C22:0 | 0.65 ± 0.03 | 0.38 ± 0.00 | 0.72 ± 0.05 |
| C23:0 | 0.56 ± 0.02 | 0.53 ± 0.03 | 0.51 ± 0.03 |
| C24:0 | 0.53 ± 0.02 | 0.54 ± 0.03 | 0.52 ± 0.04 |
| SFA | 36.08 ± 0.34 | 34.41 ± 0.60 | 36.73 ± 0.78 |
| C14:1 | 0.78 ± 0.13 | 0.51 ± 0.10 | 0.66 ± 0.11 |
| C16:1 | 0.97 ± 0.10 | 0.8 ± 0.04 | 0.87 ± 0.05 |
| C17:1 | 0.73 ± 0.04 | 0.85 ± 0.04 | 0.77 ± 0.06 |
| C18:1n9t | 1.72 ± 0.14 | 2.45 ± 0.41 | 1.69 ± 0.23 |
| C18:1n9c | 16.16 ± 0.28 | 14.76 ± 0.52 | 15.76 ± 0.85 |
| C20:1n9 | 0.69 ± 0.03 | 0.63 ± 0.03 | 0.71 ± 0.04 |
| C22:1n9 | 0.55 ± 0.03 | 0.65 ± 0.05 | 0.60 ± 0.09 |
| MUFA | 21.60 ± 0.33 | 20.65 ± 0.53 | 21.06 ± 0.87 |
| C18:2n6c | 4.45 ± 0.08 | 4.62 ± 0.19 | 4.40 ± 0.15 |
| C20:3n6 | 0.45 ± 0.02 | 0.46 ± 0.05 | 0.42 ± 0.07 |
| C20:4n6 | 0.55 ± 0.04 | 0.48 ± 0.06 | 0.51 ± 0.08 |
| C20:5n3 | 0.57 ± 0.03 | 0.54 ± 0.05 | 0.48 ± 0.06 |
| C22:6n3 | 0.44 ± 0.02 | 0.38 ± 0.04 | 0.44 ± 0.04 |
| PUFA | 8.23 ± 0.15 | 8.00 ± 0.31 | 7.84 ± 0.27 |
| UFA | 29.83 ± 0.4 | 28.65 ± 0.69 | 28.90 ± 1.01 |
| MUFA/SFA | 0.60 ± 0.01 | 0.60 ± 0.02 | 0.57 ± 0.02 |
| PUFA/SFA | 0.23 ± 0.00 | 0.23 ± 0.01 | 0.21 ± 0.01 |
| UFA/SFA | 0.83 ± 0.01 | 0.83 ± 0.02 | 0.79 ± 0.02 |
| SCFA | 1.85 ± 0.08 | 1.91 ± 0.19 | 2.01 ± 0.24 |
| MCFA | 2.06 ± 0.04 | 2.16 ± 0.07 | 2.11 ± 0.12 |
| LCFA | 62.00 ± 0.68 | 58.99 ± 1.18 | 61.51 ± 1.66 |
| n-6 | 5.45 ± 0.09 | 5.56 ± 0.22 | 5.33 ± 0.21 |
| EFA | 8.23 ± 0.15 | 8.00 ± 0.31 | 7.84 ± 0.27 |

Note: Values are shown as the means ± standard error.