

Table S7. Number of significant OTU of each fold of cross-validation and the number of common OTU for each trait at each stage within each fold

| Traits <sup>1</sup> | Stage    | Fold 1 | Fold 2 | Fold 3 | Fold 4 | Common |
|---------------------|----------|--------|--------|--------|--------|--------|
| LD                  | Wean     | 108    | 80     | 245    | 229    | 25     |
|                     | Mid-test | 79     | 83     | 84     | 80     | 30     |
|                     | Off-test | 89     | 71     | 97     | 79     | 19     |
| FD                  | Wean     | 179    | 82     | 80     | 93     | 25     |
|                     | Mid-test | 340    | 381    | 393    | 375    | 207    |
|                     | Off-test | 273    | 308    | 359    | 379    | 156    |
| CADG                | Wean     | 276    | 110    | 144    | 108    | 36     |
|                     | Mid-test | 186    | 221    | 240    | 199    | 117    |
|                     | Off-test | 204    | 223    | 222    | 272    | 88     |
| BEL                 | Wean     | 290    | 122    | 120    | 118    | 39     |
|                     | Mid-test | 118    | 297    | 264    | 129    | 46     |
|                     | Off-test | 182    | 266    | 267    | 279    | 99     |
| HAM                 | Wean     | 133    | 91     | 103    | 81     | 28     |
|                     | Mid-test | 128    | 133    | 123    | 117    | 38     |
|                     | Off-test | 168    | 184    | 204    | 194    | 61     |
| LOIN                | Wean     | 112    | 83     | 92     | 95     | 23     |
|                     | Mid-test | 91     | 141    | 188    | 105    | 29     |
|                     | Off-test | 81     | 206    | 112    | 92     | 74     |
| SCOL                | Wean     | 73     | 60     | 61     | 76     | 19     |
|                     | Mid-test | 69     | 69     | 76     | 69     | 6      |
|                     | Off-test | 126    | 73     | 121    | 119    | 30     |
| PH                  | Wean     | 88     | 77     | 83     | 86     | 18     |
|                     | Mid-test | 119    | 92     | 84     | 101    | 29     |
|                     | Off-test | 94     | 85     | 92     | 109    | 21     |
| IMF                 | Wean     | 108    | 101    | 117    | 81     | 26     |
|                     | Mid-test | 320    | 292    | 227    | 142    | 71     |
|                     | Off-test | 168    | 188    | 151    | 147    | 53     |
| MINA                | Wean     | 60     | 68     | 76     | 53     | 17     |
|                     | Mid-test | 87     | 91     | 82     | 90     | 24     |
|                     | Off-test | 186    | 125    | 171    | 209    | 48     |
| MINB                | Wean     | 64     | 52     | 72     | 78     | 16     |
|                     | Mid-test | 94     | 94     | 74     | 101    | 25     |
|                     | Off-test | 121    | 93     | 94     | 121    | 35     |
| MINL                | Wean     | 88     | 61     | 59     | 53     | 17     |
|                     | Mid-test | 70     | 108    | 65     | 108    | 21     |
|                     | Off-test | 115    | 78     | 71     | 95     | 19     |
| SFIRM               | Wean     | 61     | 56     | 49     | 51     | 20     |
|                     | Mid-test | 278    | 206    | 114    | 280    | 45     |
|                     | Off-test | 184    | 143    | 121    | 156    | 38     |

|       |          |     |     |     |     |    |
|-------|----------|-----|-----|-----|-----|----|
| SMARB | Wean     | 96  | 116 | 82  | 92  | 24 |
|       | Mid-test | 114 | 185 | 166 | 142 | 38 |
|       | Off-test | 98  | 101 | 112 | 104 | 30 |
| SSF   | Wean     | 97  | 69  | 86  | 91  | 23 |
|       | Mid-test | 102 | 80  | 89  | 198 | 20 |
|       | Off-test | 263 | 93  | 123 | 116 | 27 |

Table S8. Number of significant markers of each fold of cross-validation and the number of common markers for each trait at each stage within each fold

| Traits <sup>1</sup> | Fold 1 | Fold 2 | Fold 3 | Fold 4 | Common |
|---------------------|--------|--------|--------|--------|--------|
| LD                  | 2926   | 2492   | 2944   | 2739   | 477    |
| FD                  | 4610   | 4189   | 5091   | 4432   | 1101   |
| CADG                | 3236   | 2944   | 3535   | 3560   | 598    |
| BEL                 | 3458   | 3158   | 3950   | 3861   | 722    |
| HAM                 | 2929   | 2905   | 3035   | 2917   | 477    |
| LOIN                | 3709   | 2978   | 3099   | 3384   | 591    |
| SCOL                | 3376   | 3504   | 2981   | 2978   | 561    |
| PH                  | 2466   | 2123   | 2425   | 2377   | 593    |
| IMF                 | 3660   | 3993   | 3887   | 3542   | 797    |
| MINA                | 2917   | 3158   | 3240   | 2679   | 501    |
| MINB                | 2533   | 2540   | 2679   | 2605   | 539    |
| MINL                | 3322   | 3403   | 2889   | 3323   | 405    |
| SFIRM               | 2960   | 3009   | 2618   | 2889   | 487    |
| SMARB               | 3448   | 3577   | 3916   | 3207   | 586    |
| SSF                 | 3046   | 3085   | 3138   | 3008   | 481    |

<sup>1</sup>LD = Loin depth; FD = Fat depth; CADG = Carcass average daily gain; HAM = Ham weight; LOIN = Loin weight; BEL = Belly weight; IMF = Intramuscular fat percent, MINA = Minolta a\*, MINB = Minolta b\*, MINL = Minolta L\*, PH = Ultimate pH; SCOL = Subjective color score; SMARB = Subjective marbling score; SFIRM = Subjective firmness score; SSF = Slice shear force