

Supplementary Table 1 Quality inspection results of RNA extracted samples

| Sample name | RNA concentration (ng/ $\mu$ L) | volume( $\mu$ L) | Total quantity ( $\mu$ g) | OD <sub>260/280</sub> | OD <sub>260/230</sub> | Test conclusion |
|-------------|---------------------------------|------------------|---------------------------|-----------------------|-----------------------|-----------------|
| LD-1        | 1552                            | 32               | 49.66400                  | 2.18                  | 2.04                  | A               |
| LD-2        | 1366                            | 32               | 43.71200                  | 2.14                  | 1.92                  | A               |
| LD-3        | 1880                            | 32               | 60.16000                  | 2.07                  | 2.05                  | A               |
| LM-1        | 1916                            | 32               | 61.31200                  | 2.05                  | 1.88                  | A               |
| LM-2        | 1168                            | 32               | 37.37600                  | 1.99                  | 1.65                  | A               |
| LM-3        | 1932                            | 32               | 61.82400                  | 2.10                  | 2.03                  | A               |
| LY-1        | 1064                            | 32               | 34.04800                  | 2.07                  | 1.98                  | A               |
| LY-2        | 1254                            | 32               | 40.12800                  | 1.92                  | 1.82                  | A               |
| LY-3        | 1032                            | 32               | 33.02400                  | 2.15                  | 2.24                  | A               |

Note: The classification requirements for the test results are as follows: Rate A: the sample quality meets the requirements for library construction and sequencing, and the total quantity meets the requirements for library construction two or more times; Rate B: the sample quality meets the library construction and sequencing requirements, and the total quantity meets one time but less than two times of library construction needs; Rate C: the sample quality does not fully meet the library construction and sequencing requirements, which can be tried to build the database; Rate D: the sample quality does not fully meet the library construction and sequencing requirements, which is not recommended for using.

Supplementary Table 2 Primers sequence of the genes used for Real-Time fluorescence quantitative PCR

| lncRNA           | lncRNA ID      | Primer sequences                                         | mRNA           | Gene ID            | Primer sequences                                                 |
|------------------|----------------|----------------------------------------------------------|----------------|--------------------|------------------------------------------------------------------|
|                  |                |                                                          | <i>β-actin</i> | AC_000162.1        | F: CTT CGA GCA GGA GAT GGC<br>R: CCG TGT TGG CGT AGA GGT         |
| <i>TRPM8-OT1</i> | TCONS_00166876 | F: CGA ACG AAA GAG TGC CTG<br>R: GGC GAC ATC GGT ATC AAG | <i>SPP2</i>    | ENSBMUG00000025472 | F: AAC AGT TAC CTG CTT GGC<br>R: TTT ACT CTT GCT CTG GGC         |
| <i>LINC4531</i>  | TCONS_00195143 | F: AGT GCC TTC AGT TGT GCT<br>R: ACT CAA AAG CAA GCG GTC | <i>FSTL1</i>   | ENSBMUG00000026481 | F: ACC AGG AGA ACA ACA AGC<br>R: TTG AGG CAC TTG AGG AAC         |
| <i>NNAT-OT1</i>  | TCONS_00098792 | F: ACA GGC AAC GCA TTC AGA<br>R: ACC GAG ATT CAG GGC TTC | <i>NNAT</i>    | ENSBMUG00000000490 | F: CAC ACA CGC AGC ACG CAC A<br>R: GCA GTC CCC AGC CGA GTG AAT   |
| <i>DGKQ-OT1</i>  | TCONS_00031898 | F: GTG TCT GTC GTC CGC AAA<br>R: GCA ACT CCT GGC AAC TGT | <i>SLC26A1</i> | ENSBMUG00000024704 | F: CAG TGA CCA TCC TGA CCT C<br>R: AGC ACG TCA CAC AGG TTG       |
| <i>LINC3623</i>  | TCONS_00160902 | F: GGT TGC CAC TCC CTT CTC<br>R: CCT TCT TGG GCT TCC TTA | <i>UGT2A2</i>  | ENSBMUG00000018785 | F: GTG AGA AAC ACT GGG CTG GAT A<br>R: TGC CAT AAG GGT GGT GTC C |
| <i>LINC4526</i>  | TCONS_00194942 | F: TCT TGC GAT GGA CTA TGC<br>R: TCT TTG CCG AAT CAG GTG | <i>NOTUM</i>   | ENSBMUG00000026356 | F: TTC ATC CCC TAC TGC TCC<br>R: CAG GTT GGA AGG AGG TCA         |
|                  |                |                                                          | <i>FASN</i>    | ENSBMUG00000026205 | F: TCC AGC ACA GCC AGA ACC<br>R: CGG AGC AGA TGA ACC AGA         |