

Table SI. Antibodies used in the experiments.

| Antibody | Source | Dilution | Cat. no. |
|---|----------------------------|-----------------|-----------------|
| β -TUBULIN | Proteintech Group, Inc. | 1:25,000 | 80713-1-RR |
| TAS1R2 | Proteintech Group, Inc. | 1:1,250 | 29344-1-AP |
| PLC β | Proteintech Group, Inc. | 1:750 | 66668-1-Ig |
| GANT3 | ABclonal Biotech Co., Ltd. | 1:1,250 | A15982 |
| p-PLC β | ABclonal Biotech Co., Ltd. | 1:1,250 | AP0837 |
| PKC β | ABclonal Biotech Co., Ltd. | 1:3,600 | A21241 |
| TAS1R3 | ABclonal Biotech Co., Ltd. | 1:750 | A10157 |
| DGKH | Affinity Biosciences | 1:1,250 | AF0611 |
| HRP-conjugated Affinipure Goat Anti-Rabbit IgG (H+L) | Proteintech Group, Inc. | 1:10,000 | SA00001-2 |
| HRP-conjugated Affinipure Goat Anti-Mouse IgG (H+L) | Proteintech Group, Inc. | 1:10,000 | SA00001-1 |

TAS1R, taste 1 receptor member; PLC β , phospholipase C beta;GNAT3, G protein subunit alpha transducin 3;p-, phosphorylated; PKC, protein kinase C.

Table SII. Primers used in the gene transcription analysis.

| Genes | Forward | Reverse |
|------------------------------|-------------------------|-----------------------------|
| <i>Gck</i> | GCCACAAACATTCCAGAGACAG | AGAGGGACCTGGGTGGTTTC |
| <i>G6pc1</i> | CTGCTGTGTCTGGTAGGCAA | CCTGGGTCTCCTTGCCATT |
| <i>Slc2a2</i> | TCCTTGGGCCTTACGTGTTC | CTGGTCGGTTCCTCGGTTTT |
| <i>Slc5a10</i> | CCTGTGGTACTGGTGTACGG | CGATGTTGGTACAGCCCACT |
| <i>Ehhadh</i> | ATGGCTGAGTATCTGAGGCTG | ACCGTATGGTCCAAACTAGCTT |
| <i>Acot1</i> | TGATGGTTTGGAGGTTGGGG | TGAAACTCCATTCCCAGCCC |
| <i>Tnfa</i> | CCCTCACACTCAGATCATCTTCT | GCTACGACGTGGGCTACAG |
| <i>Ccl2</i> | TTAAAAACCTGGATCGGAACCAA | GCATTAGCTTCAGATTTACGGGT |
| <i>Il6</i> | TAGTCCTTCTACCCCAATTTC | TTGGTCCTTAGCCACTCCTTC |
| <i>Il1β</i> | GCAACTGTTCTGAACTCAACT | ATCTTTTGGGGTCCGTCAACT |
| <i>Acaca</i> | GATGAACCATCTCCGTTGGC | GACCCAATTATGAATCGGGAGT G |
| <i>Elovl6</i> | GAAAAGCAGTTCAACGAGAACG | AGATGCCGACCACCAAAGATA |
| <i>Srebf1</i> | TGACCCGGCTATTCCGTGA | CTGGGCTGAGCAATACAGTTC |
| <i>Acox1</i> | CCGCCACCTTCAATCCAGAG | CAAGTTCTCGATTTCTCGACGG |
| <i>Dgat2</i> | GCGCTACTTCCGAGACTACTT | GGGCCTTATGCCAGGAACT |
| <i>Cd36</i> | ATGGGCTGTGATCGGAACTG | GTCTTCCAATAAGCATGTCTCC |
| <i>Pck1</i> | TGGAAGGTCGAATGTGTGGG | CAGTAAACACCCCCATCGCT |
| <i>Pgm2</i> | AGGCCAAAATCGTCCTAGCC | TCCACTCACCCTGTCTTGC |
| <i>Gapdh</i> | AACTTTGGCATTGTGGAAGGG | GACACATTGGGGGTAGGAACA |