



Figure S1 Culture and identification of rumen epithelial cells. (A) Cultured rumen epithelial cells. (B) Identification rumen epithelial cells by CK18 and E-cadherin positive expression. (C) LDH activity assays, the LDH activity significantly increased from day 2 to day 6.

Table S1 The results of Shapiro-Wilk test

Groups Genes	Shapiro-Wilk test			
	0 mmol/L	1 mmol/L	10 mmol/L	20 mmol/L
CYP11A1	0.9614 (<i>P</i> =0.7877)	0.9525 (<i>P</i> =0.7316)	0.9174 (<i>P</i> =0.5225)	0.9412 (<i>P</i> =0.6618)
AHCYL2	0.8227 (<i>P</i> =0.1495)	0.8442 (<i>P</i> =0.2078)	0.9316 (<i>P</i> =0.6038)	0.9127 (<i>P</i> =0.4968)
UPK1B	0.9950 (<i>P</i> =0.9813)	0.9353 (<i>P</i> =0.6262)	0.8651 (<i>P</i> =0.2791)	0.8986 (<i>P</i> =0.4239)
WWC2	0.8753 (<i>P</i> =0.3189)	0.9270 (<i>P</i> =0.5771)	0.9864 (<i>P</i> =0.9384)	0.9021 (<i>P</i> =0.4415)
TGF- β 2	0.8553 (<i>P</i> =0.2437)	0.8266 (<i>P</i> =0.1592)	0.9327 (<i>P</i> =0.6102)	0.8619 (<i>P</i> =0.2670)
SEMA3A	0.8186 (<i>P</i> =0.1400)	0.8613 (<i>P</i> =0.2647)	0.8748 (<i>P</i> =0.3169)	0.9290 (<i>P</i> =0.5887)
PTHLH	0.8756 (<i>P</i> =0.3202)	0.8567 (<i>P</i> =0.2484)	0.8685 (<i>P</i> =0.2918)	0.9038 (<i>P</i> =0.4502)
CA2	0.9366 (<i>P</i> =0.6338)	0.9199 (<i>P</i> =0.5364)	0.8892 (<i>P</i> =0.3793)	0.8638 (<i>P</i> =0.2740)
TGFBI	0.9004 (<i>P</i> =0.4330)	0.9760 (<i>P</i> =0.8780)	0.8054 (<i>P</i> =0.1123)	0.9344 (<i>P</i> =0.6207)