



**Figure S1.** Original Western blot figures of PPAR $\gamma$ , C/EBP $\alpha$ , ERK2, and ADPN in bovine adipocytes treated with ATRA.



**Figure S2.** Original Western blot figures of SREBP1 and AKT2 in bovine adipocytes treated with ATRA.

**Table S1.** Image J analysis of grayscale values.

GENE mol/L	0	2×10 <sup>-7</sup>	1×10 <sup>-6</sup>	2×10 <sup>-6</sup>	1×10 <sup>-5</sup>	2×10 <sup>-5</sup>
ADPN	73,455	75,997	82,773	82,810	82,846	83,065
AKT2	36,202	30,359	25,578	13,926	6280	4433
CEBP/α	38,659	25,664	25,455	20,296	19,516	9123
ERK2	49,245	32,330	24,829	21,681	12,689	13,751
PPAR <sub>γ</sub>	77,768	64,919	48,210	43,268	34,658	4188
SREBP 1	45,050	42,438	41,284	39,835	33,890	13,593
β-actin	29,899	28,914	31,077	32,454	35,458	35,857