

**Table S5: Relative quantification (RQ) of gene expression in rat white adipose tissue**

Function	Gene	RQ (Ctrl)	RQ (Olan)	RQ (Olan+Ber)	RQ (Olan+Met)
Energy expenditure	Uncoupling protein 1(UCP1)	1	1.1257	0.9187	<b>0.5976</b>
	Uncoupling protein 3(UCP3)	1	0.9076	0.8517	0.774
	AMP-activated protein kinase-(AMPK)	1	0.7135	0.7842	0.9662
	PPARy coactivator-1alpha (PPGC-1a)	1	1.0719	0.9314	1.1531
	Uncoupling protein 2(UCP2)	1	<b>0.4168</b>	0.4534	0.5022
Energy intake	Serotonin transporter (SERT)	1	0.4689	0.4384	1.0554
	Neuropeptide Y (NPY)	1	0.9503	0.7849	<b>1.9328</b>
Glucose metabolism	Glucose transporters 4(GLUT4/Slc2a4)	1	<b>0.6919</b>	<b>1.7306</b>	<b>1.1937</b>
	11 beta-hydroxysteroid dehydrogenase type 1 (Hsd11b1)	1	1.3417	1.6528	1.6998
	Glycogen phosphorylase (Pygl)	1	1.0645	<b>1.6001</b>	<b>1.6395</b>
	Pyruvate kinase (Pkm2)	1	0.8344	<b>1.157</b>	0.7264
	Phosphoenolpyruvate carboxykinase 1 (Pck1)	1	<b>1.9056</b>	1.7782	2.0638
	Phosphoenolpyruvate carboxykinase 2(Pck2)	1	0.7283	1.001	<b>1.7455</b>
Lipid metabolism	Peroxisome proliferator activated receptor gamma(PPARγ)	1	1.2541	<b>1.9716</b>	<b>2.0387</b>
	GATA binding protein 3 (GATA3)	1	1.3531	<b>0.5908</b>	<b>0.3241</b>
	CCAAT/enhancer binding protein alpha (C/EBPα)	1	<b>1.5371</b>	<b>2.3521</b>	<b>2.7735</b>
	GATA binding protein 2 (GATA2)	1	0.9927	0.6027	<b>1.2382</b>
	Leptin (Lep)	1	1.4334	<b>3.1486</b>	<b>3.1338</b>
	Resistin (Retn)	1	1.0035	<b>1.6825</b>	1.4622
	Adiponectin (Adipoq)	1	<b>1.9209</b>	2.1533	2.6437
	HMG-CoA reductase (Hmgcr)	1	<b>0.5825</b>	<b>0.7815</b>	0.7125
	Glycerol-3P acyltransferase (GPAM)	1	<b>1.2941</b>	<b>2.9321</b>	<b>2.3294</b>
	Fatty acid synthase (FAS)	1	<b>1.5579</b>	<b>2.8311</b>	<b>2.0223</b>
	Acetyl-co-A carboxylase alpha (Acaca)	1	0.7424	1.7355	<b>1.3982</b>
	Acetyl-co-A carboxylase beta (Acacb)	1	<b>1.327</b>	1.7079	1.1045
	Stearoyl-CoA desaturase (SCD1)	1	<b>3.569</b>	<b>4.8277</b>	3.268
	Low-density lipoprotein receptor (LDLR)	1	<b>0.48</b>	0.5398	0.4104
	Insulin-induced gene 2 (INSIG2)	1	0.4742	1.1118	<b>1.224</b>
	Sterol regulatory element binding protein-1 (SREBP-1)	1	<b>0.5412</b>	<b>1.1571</b>	<b>1.2275</b>
	Acyl-CoA dehydrogenase (Acadvl)	1	0.8832	<b>1.0685</b>	0.9995
	Peroxisome proliferator activated receptor alpha(PPARα)	1	1.0601	0.8645	0.9966
	Liver X receptor alpha (LXRα/Nr1h3)	1	1.5782	1.8477	2.0035
	Apolipoprotein E (ApoE)	1	<b>0.4891</b>	<b>0.4128</b>	<b>0.6056</b>
Acyl-CoA oxidase (Acox1)	1	1.0737	<b>1.3532</b>	1.3132	
Phospholipase C, beta 1 (PLCB1)	1	<b>0.3736</b>	0.1912		
Insulin Receptor (IssR)	1	0.7932	<b>1.2356</b>	1.4171	
Others	Mitogen-activated protein kinase 14 (MAPK14)	1	<b>0.5432</b>	0.6093	0.7106
	Mitogen-activated protein kinase 1 (MAPK1)	1	<b>0.6574</b>	0.6445	0.7301
	MAPK8 (c-jun N-terminal)	1	0.9281	0.9632	0.961
	Estrogen sulfotransferase (EST/ste2)	1	0.9996	1.5356	<b>1.6695</b>

Bold numbers are significant at P<0.05 when compared between Olan vs. Ctrl group, or Olan+Ber vs. Olan group, or Olan+Met vs. Olan group