

Table S4. The detail fold change values and GO term analysis of down-regulated genes in group HPL goats.

GO	Number of genes	Genes	Name of genes	FC
execution phase of apoptosis	10	<i>PTGIS</i>	prostaglandin I2 synthase	-40.28
		<i>ENDOG</i>	endonuclease G	-2.47
		<i>BOK</i>	BCL2 family apoptosis regulator BOK	-2.42
		<i>ERN2</i>	endoplasmic reticulum to nucleus signaling 2	-2.21
		<i>SHARPIN</i>	SHANK associated RH domain interactor	-2.20
		<i>CIDEA</i>	cell death inducing DFFA like effector c	-1.85
		<i>CXCR3</i>	C-X-C motif chemokine receptor 3	-1.76
		<i>SIRT2</i>	sirtuin 2	-1.58
		<i>RPS3</i>	ribosomal protein S3	-1.55
tetrapyrrole metabolic process	9	<i>BAX</i>	BCL2 associated X, apoptosis regulator	-1.47
		<i>ALAS2</i>	5'-aminolevulinate synthase 2	-109.21
		<i>ALAD</i>	aminolevulinate dehydratase	-2.36
		<i>UROD</i>	uroporphyrinogen decarboxylase	-2.27
		<i>CYP1A2</i>	cytochrome P450, family 1, subfamily A, polypeptide 2	-2.20
		<i>UROS</i>	uroporphyrinogen III synthase	-2.18
		<i>HNF1A</i>	HNF1 homeobox A	-1.76
		<i>MMAB</i>	metabolism of cobalamin associated B	-1.76
		<i>ATP5IF1</i>	ATP synthase inhibitory factor subunit 1	-1.74
response to toxic substance	43	<i>BLVRB</i>	biliverdin reductase B	-1.62
		<i>HBM</i>	hemoglobin subunit mu	-29.13
		<i>CHRNA2</i>	cholinergic receptor nicotinic beta 2 subunit	-4.83
		<i>LYPD1</i>	LY6/PLAUR domain containing 1	-4.83
		<i>GNRH1</i>	gonadotropin releasing hormone 1	-4.48
		<i>MPO</i>	myeloperoxidase	-3.74
		<i>CHRNA6</i>	cholinergic receptor nicotinic alpha 6 subunit	-3.68
		<i>DRD3</i>	dopamine receptor D3	-3.26
		<i>CHRNA4</i>	cholinergic receptor nicotinic delta subunit	-2.93
reactive nitrogen species metabolic process	5	<i>LTC4S</i>	leukotriene C4 synthase	-2.73
		<i>IL6</i>	interleukin 6	-2.49
		<i>PTGIS</i>	prostaglandin I2 synthase	-40.28
		<i>PKD2</i>	polycystin 2, transient receptor potential cation channel	-3.51
		<i>NOS3</i>	nitric oxide synthase 3	-2.27
regulation of signaling receptor activity	53	<i>CPS1</i>	carbamoyl-phosphate synthase 1	-2.27
		<i>DDAH2</i>	dimethylarginine dimethylaminohydrolase 2	-1.95
		<i>FGF16</i>	fibroblast growth factor 16	-8.29
		<i>CCL2</i>	chemokine (C-C motif) ligand 2	-7.83
		<i>CGA</i>	glycoprotein hormones, alpha polypeptide	-7.58
		<i>INHBE</i>	inhibin subunit beta E	-7.45
		<i>CLEC11A</i>	C-type lectin domain containing 11A	-5.36
		<i>CXCL5</i>	chemokine (C-X-C motif) ligand 5	-5.36
		<i>TNFSF11</i>	TNF superfamily member 11	-4.98
		<i>AVP</i>	arginine vasopressin	-4.83
		<i>LYPD1</i>	LY6/PLAUR domain containing 1	-4.83
		<i>FOXH1</i>	forkhead box H1	-4.70
		<i>GNRH1</i>	gonadotropin releasing hormone 1	-4.48
		<i>NPY</i>	neuropeptide Y	-3.87
		<i>CCL17</i>	C-C motif chemokine ligand 17	-3.83
		<i>OXT</i>	oxytocin/neurophysin I prepropeptide	-3.65
		<i>GHRH</i>	growth hormone releasing hormone	-3.55
		<i>NOG</i>	noggin	-3.29
		<i>EDA</i>	ectodysplasin A	-3.17
		<i>CXCL9</i>	C-X-C motif chemokine ligand 9	-3.04
peptidyl-arginine modification	10	<i>MIF</i>	macrophage migration inhibitory factor	-3.03
		<i>RETN</i>	resistin	-2.73
		<i>ART1</i>	ADP-ribosyltransferase 1	-2.69
		<i>PADI6</i>	peptidyl arginine deiminase 6	-2.30
		<i>PADI3</i>	peptidyl arginine deiminase 3	-2.08

		<i>PADI1</i>	peptidyl arginine deiminase 1	-2.05
		<i>KRTCAP2</i>	keratinocyte associated protein 2	-1.81
		<i>COPRS</i>	coordinator of PRMT5 and differentiation stimulator	-1.75
		<i>PARK7</i>	Parkinsonism associated deglycase	-1.55
		<i>PRMT7</i>	protein arginine methyltransferase 7	-1.54
		<i>PRMT2</i>	protein arginine methyltransferase 2	-1.48
		<i>PRMT1</i>	protein arginine methyltransferase 1	-1.46
amine transport	15	<i>CHRNA2</i>	cholinergic receptor nicotinic beta 2 subunit	-4.83
		<i>CHRNA6</i>	cholinergic receptor nicotinic alpha 6 subunit	-3.68
		<i>DRD3</i>	dopamine receptor D3	-3.26
		<i>ACE2</i>	angiotensin I converting enzyme 2	-2.55
		<i>SNCG</i>	synuclein gamma	-2.54
		<i>SYT2</i>	synaptotagmin 2	-2.30
		<i>SLC22A16</i>	solute carrier family 22 member 16	-2.27
		<i>SYT1</i>	synaptotagmin 1	-2.27
		<i>SLC18A1</i>	solute carrier family 18 member A1	-2.08
		<i>DTNBP1</i>	dystrobrevin binding protein 1	-1.79
organic cation transport	3	<i>SLC22A1</i>	solute carrier family 22 member 1	-427.65
		<i>SLC22A16</i>	solute carrier family 22 member 16	-2.27
		<i>SLC18A3</i>	solute carrier family 18 member A3	-2.23
ammonium transport	15	<i>RHAG</i>	Rh associated glycoprotein	-8.59
		<i>CHRNA2</i>	cholinergic receptor nicotinic beta 2 subunit	-4.83
		<i>CHRNA6</i>	cholinergic receptor nicotinic alpha 6 subunit	-3.68
		<i>DRD3</i>	dopamine receptor D3	-3.26
		<i>SLC6A2</i>	solute carrier family 6 member 2	-2.59
		<i>SNCG</i>	synuclein gamma	-2.54
		<i>SYT2</i>	synaptotagmin 2	-2.30
		<i>ADCYAP1</i>	adenylate cyclase activating polypeptide 1	-2.27
		<i>SLC22A16</i>	solute carrier family 22 member 16	-2.27
		<i>SYT1</i>	synaptotagmin 1	-2.27
NADH dehydrogenase complex assembly	21	<i>NDUFA13</i>	NADH:ubiquinone oxidoreductase subunit A13	-2.73
		<i>NDUFS5</i>	NADH:ubiquinone oxidoreductase subunit S5	-2.27
		<i>NDUFS7</i>	NADH:ubiquinone oxidoreductase core subunit S7	-2.13
		<i>NDUFB9</i>	NADH:ubiquinone oxidoreductase subunit B9	-1.96
		<i>NDUFA9</i>	NADH:ubiquinone oxidoreductase subunit A9	-1.94
		<i>NDUFA8</i>	NADH:ubiquinone oxidoreductase subunit A8	-1.76
		<i>BCS1L</i>	BCS1 homolog, ubiquinol-cytochrome c reductase complex chaperone	-1.76
		<i>NDUFB2</i>	NADH:ubiquinone oxidoreductase subunit B2	-1.66
		<i>NDUFA5</i>	NADH:ubiquinone oxidoreductase subunit A5	-1.55
		<i>NDUFA2</i>	NADH:ubiquinone oxidoreductase subunit A2	-1.51