

**Table S4. GO Ontology annotation of upregulated genes in the androstenone treatment group compared to control group.**

GO ID	Description	Log (q-value)	Number of genes
GO: 0006959	Humoral immune response	-19.83410991	45
GO: 0033141	Positive regulation of peptidyl-serine phosphorylation of STAT protein	-16.38263234	15
GO: 0002443	Leukocyte mediated immunity	-15.40632335	53
GO: 0033139	Regulation of peptidyl-serine phosphorylation of STAT protein	-15.21546223	15
GO: 0002323	Natural killer cell activation involved in immune response	-14.97619381	17
GO: 0042501	Serine phosphorylation of STAT protein	-14.97619381	15
GO: 0002449	Lymphocyte mediated immunity	-13.422997	44
GO: 0034340	Response to type I interferon	-13.37813615	23
GO: 0060337	Type I interferon-mediated signaling pathway	-13.17126356	22
GO: 0019724	B cell mediated immunity	-13.17126356	33