

**Table S1.** New genes with significant differential expression between the left and right sides.

High expression side	Gene ID	Gene name	P-value	Log <sub>2</sub> FoldChange
Right	evm.model.Hic_chr_16.3	<i>Nlrc3-like</i>	5.23e-06	-28.57
Right	evm.model.Hic_chr_17.469	<i>Ugt1a2</i>	7.82e-05	-4.84
Right	evm.model.Hic_chr_10.487	<i>Smarcad1</i>	1.57e-03	-4.34
Right	evm.model.Hic_chr_18.213	<i>Hipk1</i>	2.17e-03	-4.06
Right	evm.model.Hic_chr_14.418	<i>Ttc21b</i>	5.14e-03	-3.78
Right	evm.model.Hic_chr_15.251	<i>Trim25</i>	5.47e-03	-1.14
Left	evm.model.Hic_chr_8.550	<i>S100a5-like</i>	1.54e-05	3.89
Left	evm.model.Hic_chr_6.523	-	4.27e-05	3.42
Left	evm.model.Hic_chr_11.402	<i>Fel</i>	1.27e-04	2.41