

Table 2 – qRT-PCR validation of RNA-seq data. The average fold-changes detected by qRT-PCR on a random selection of thirteen genes confirm the differential accumulation of mRNAs detected by RNA-seq.

		RNAseq			qPCR		
Transcript	Function descriptors (N. paralogues)	Actual N. reads			Normalized expression value ³		Average fold changes ⁴
		B (9,682,423) ²	S (4,280,814) ¹	Normalized fold changes ²	B (std)	S (std)	
AAEL006138-RA	Vitellogenin-A1 (3)	118666	8	12.82	2.67 (0.44)	9.68E-4 (7.84 ⁻⁴)	11.43**
AAEL013284-RA	Serine-type endopeptidase AaLT (27)	22558	19	9.18	0.97 (0.61)	1.54E ⁻² (2.51 ⁻²)	5.98*
AAEL013707-RA	Trypsin-1 (28)	7612	32	6.86	1.28 (0.23)	6.96E ⁻² (3.50 ⁻²)	4.20**
AAEL001806-RA	Lipid binding (2)	171	1	6.38	0.19 (2.63 ⁻²)	3.39E ⁻² (1.04 ⁻²)	2.50**
AAEL014734-RA	Catalytic activity (0)	7770	802	2.24	3.08E-2 (2.63 ⁻²)	7.65E-3 (7.89 ⁻³)	2.01
AAEL011470-RA	Protein binding (0)	4551	615	1.85	5.91E-2 (2.39 ⁻²)	3.98E ⁻² (1.27 ⁻²)	0.57
AAEL013005-RA	Molecular function (0)	1833	253	1.82	1.15E-2 (3.55 ⁻³)	7.21E-3 (3.41 ⁻³)	0.67
AAEL002565-RA	Structural constituent of Cytoskeleton (16)	15421	21389	-1.51	6.52E-2 (1.66 ⁻²)	9.13E ⁻² (1.32 ⁻²)	-3.81*
AAEL008848-RA	Catalytic activity (0)	9414	11236	-1.29	0.30 (0.13)	0.62 (0.13)	-1.05*
AAEL012175-RA	Catalytic activity (4)	36942	41536	-1.21	0.35 (0.08)	1.42 (1.23)	-2.02
AAEL011871-RA	Electron Transporter (0)	11042	12116	-1.17	0.70 (0.40)	2.27 (0.42)	-1.70**
AAEL006425-RA	Serine-type endopeptidase (28)	1403	13914	-4.34	0.17 (4.62 ⁻²)	1.52 (0.39)	-3.16**
AAEL008701-RA	Iron Ion Binding (0)	51	689	-4.79	2.60E-3 (7.57 ⁻⁴)	0.196 (3.92 ⁻²)	-6.24**

¹The total number of reads (in parentheses) identified in libraries prepared from Blood- (B) and Sugar-fed (S) mosquitoes.

²Normalized log₂ fold changes.

³Normalized expression value as 2^{ΔCT}, with the expression of the rp49 gene used to normalize values. Normalized expression values for blood-fed (B) and sugar-fed (S) mosquitoes were obtained as an average (±standard deviation) over four biological samples.

⁴Average fold changes as log₂ (normalized expression value B/ normalized expression value S). The significance of the difference in expression value between B and S mosquitoes was calculated using the t-test. *P<0.05; **P<0.01.