

***Dnmt1* has an essential function despite the absence of CpG DNA methylation in the red flour beetle**

Tribolium castaneum

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Supplement

Table S 1 Primer sequences for RT qPCR (with efficiencies) and RNAi including information about size and location.

Gene	NCBI reference	Primer pair (5' – 3')	Fragment length (bp)	Location (start – end bp)	Efficiency	Primer origin
RT qPCR						
<i>Dnmt1</i>	XM_008195236	f: caagggcagtgatacacc r: cgcaggctctcttgatct	185	Exon 11 – 12 (3520-3704)	1.89 (95%)	This study
<i>rp49</i>	XM_964471	f: ttatggcaaaactcaaacgcaac r: ggtagcatgtgctctgtttg	132	Exon 2 – 3 (184-315)	1.98 (99%)	(1.)
<i>rpl13a</i>	XM_969211	f: ggccgcaagtctgtcac r: ggtgaatggagccactgtt	186	Exon 4 – 5 (488-673)	2.00 (100%)	(2.)
RNAi						
<i>Dnmt1</i>	XM_008195236	f: gcgagaaagtcttactgggg r: cgcggctgaaattgcttagt	153	Exon 3 (542-694)	NA	This study
		f: acgacacgggcattttactc r: tcctctttcgcatcatcg	580	Exon 5-7 (1340-1918)	NA	iB_08496 (3.)
<i>asnA</i>	NC_000913.3	f: atggtggcggcaatacgtggatc r: gattactccatcgagaagctgc	304	442-768	NA	(4.)

1. Konopova B, Jindra M. *Proc. Nat. A. Sci. USA.* 2007;104:10488-93.
2. Peuß R et al. *Proc R Soc B.* 2015;282(1819).
3. obtained from EupheriaBiotech (<http://2018.eupheria.net/>)
4. Peuß R et al. *R. Soc. open sci.* 2016;3(160138).

Table S 2 RT qPCR temperature and cycle profile

Temperature	Time	Cycles
95°C	3 min	1
95°C	15 sec	40
60°C	1 min	(measuring fluorescence after each cycle)
95°C	continuous heating to obtain melting curve	
40°C	1 min	1