

Fig. S1. Effect of larval starvation on fat body glycerol, triglycerides and total lipid of < 24h bees and 7-day-old nurses. The values presented are means \pm se. Statistical significance was analyzed by the two-tailed t test.

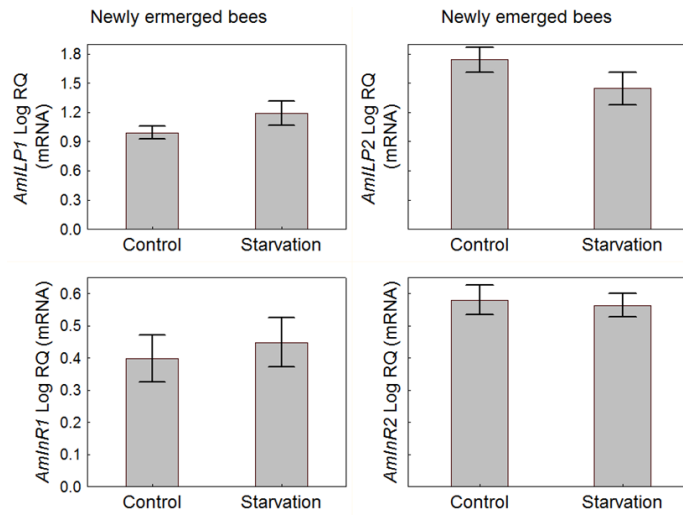


Fig. S2. Effect of larval starvation on gene expression of *AmIlp1*, *AmIlp2*, *AmInR1* and *AmInR2* of < 24h bees. The values presented are means \pm se. Statistical significance was analyzed by the two-tailed t test.

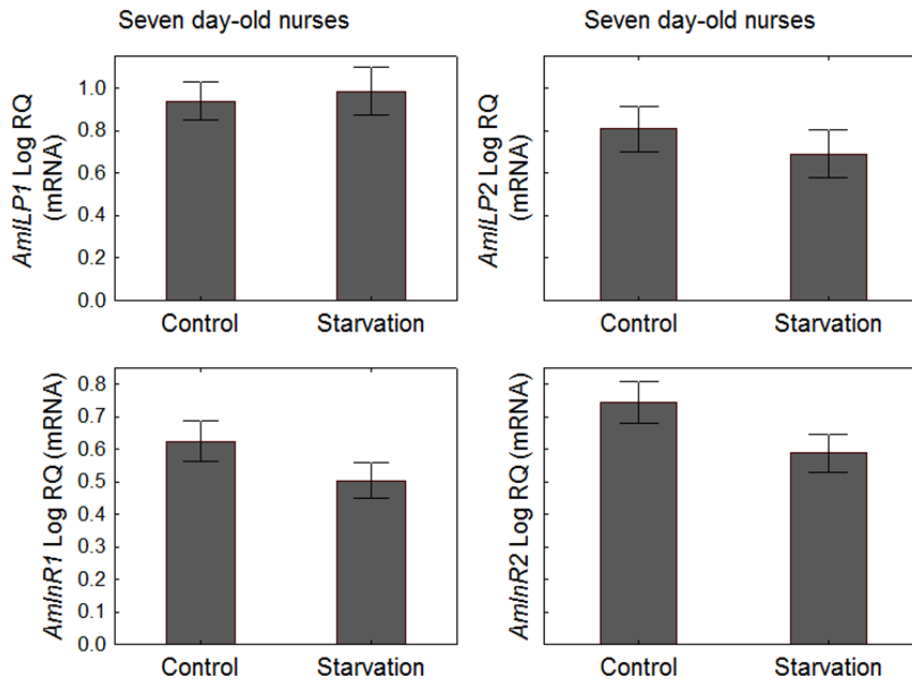


Fig. S3. Effect of larval starvation on gene expression of *Amilp1*, *Amilp2*, *AmlnR1* and *AmlnR2* of 7-day-old nurses. The values presented are means \pm se. Statistical significance was analyzed by the two-tailed t test.

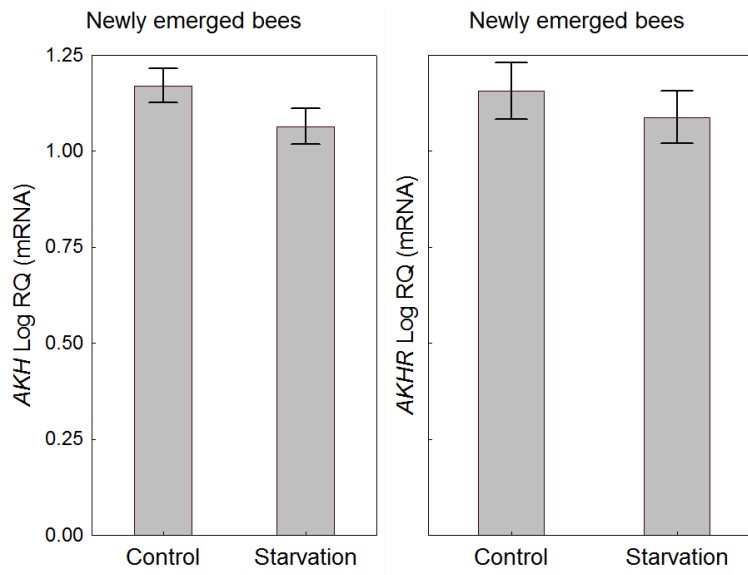


Fig. S4. Effect of larval starvation on gene expression of *AKH* and *AKHR* of < 24h bees. The values presented are the mean \pm se. Statistical significance was analyzed by the two-tailed t test.

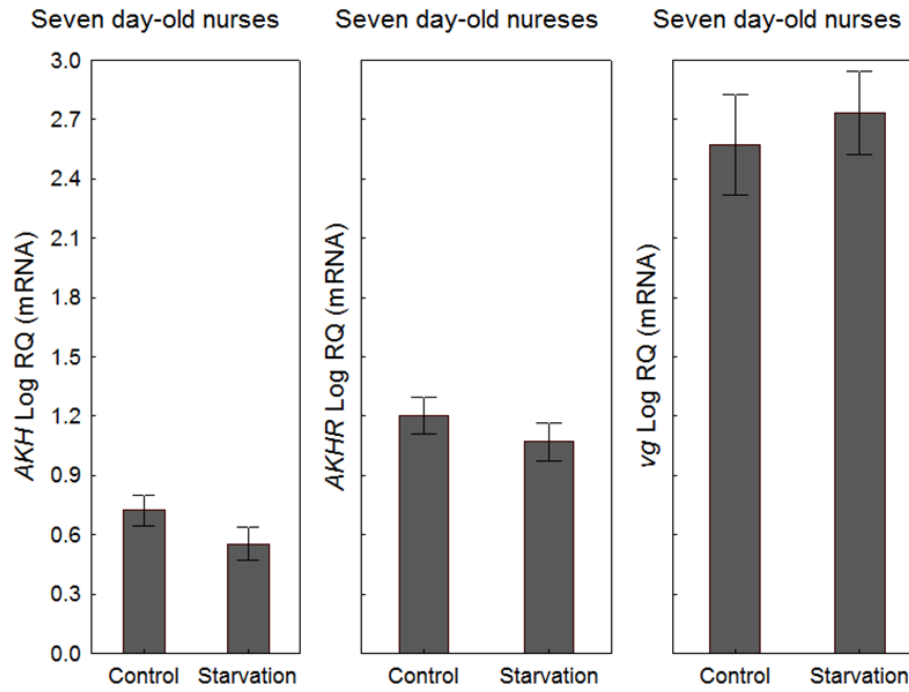


Fig. S5. Effect of larval starvation on gene expression of *AKH*, *AKHR* and *vg* of 7-day-old nurses. The values presented are mean \pm se. Statistical significance was analyzed by the two-tailed t test.

Table S1: Statistical results of candidate gene expression

Student's t-test	< 24 h			7 d old		
	Sample size (n)	t	p	Sample size (n)	t	p
llp1	16	-1.420	0.166	16	-0.334	0.740
llp2	16	1.432	0.164	16	0.767	0.450
InR1	16	-0.470	0.642	16	1.454	0.156
InR2	16	0.283	0.780	16	1.796	0.08
AKH	16	1.623	0.115	16	1.452	0.157
AKHR	16	0.690	0.496	16	0.987	0.331
vg	N/A	N/A	N/A	16	-0.429	0.671

Table S2: Candidate gene primers

Gene Names	Forward Primers	Reverse Primers
ILP1	TCAAAACGGCCATGTTTCAG	TGAGACTTTTTTCGAGCACAGC
ILP2	TTCCAGAAATGGAGATGGATG	TAGGAGCGCAACTCCTCTGT
InR1	GGATCTGGTGTGGGACAGTT	ATCCCCACGTTCGAGTATCTG
InR2	GGGAAGAACATCGTGAAGGA	CATCACGAGCAGCGTGTACT
AKH	CGTAAGCTTCGACCAAGTTTTT	CATTCGACAACTCCGATCCT
AKHR	ATAATCACCACCACGGGATT	GACCTTCGTTGAATCGCATA
vg	GTTGGAGAGCAACATGCAGA	TCGATCCATTCTTGATGGT
TYR1	GTTCGTCGTATGCTGGTTGC	GTAGATGAGCGGGTTGAGGG