Supplementary Materials: RNA Interference of the Ecdysone Receptor Genes *EcR* and *USP* in Grain Aphid (*Sitobion avenae* F.) Affects Its Survival and Fecundity upon Feeding on Wheat Plants

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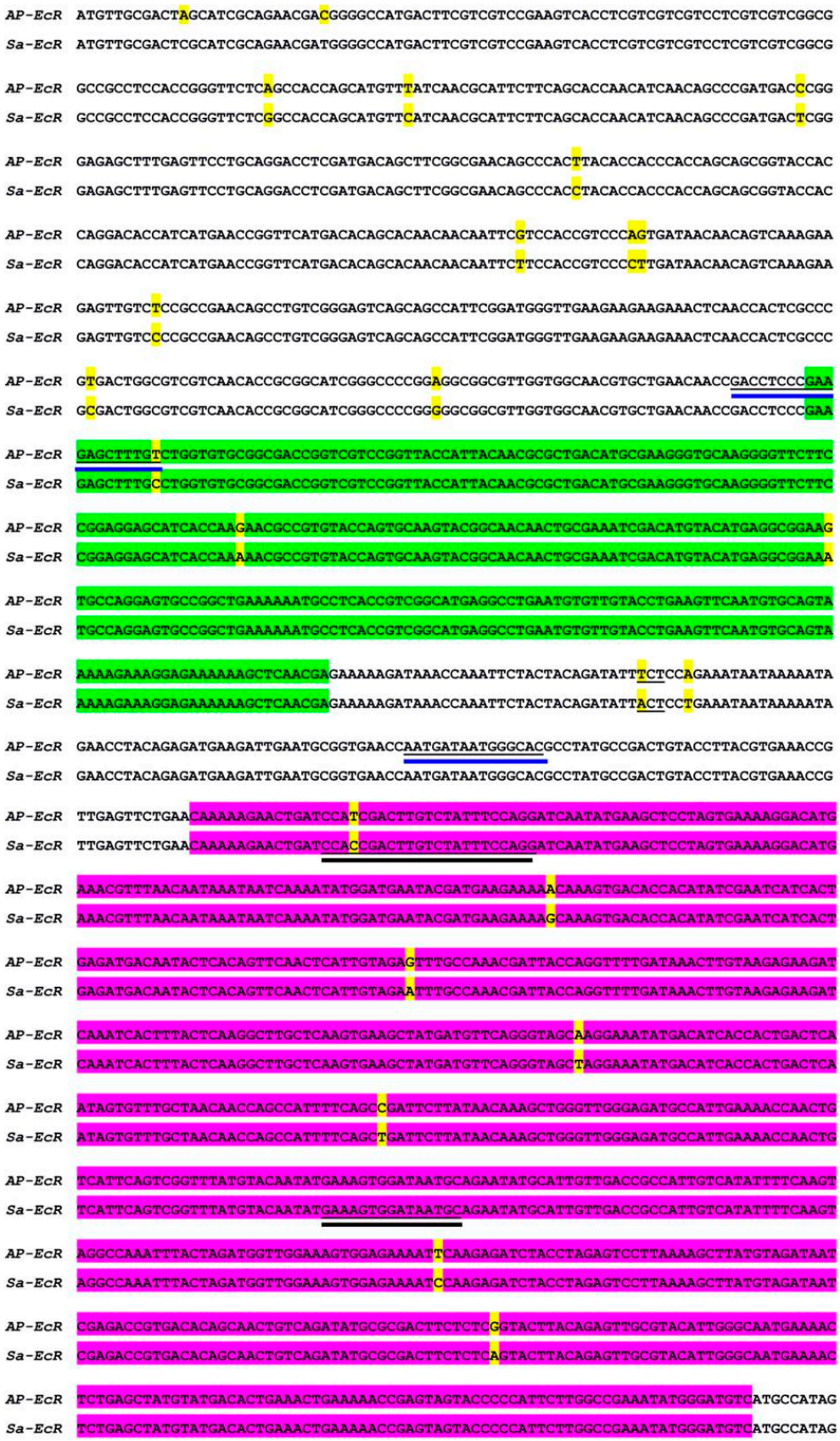
Table S1. Primer sets used in this study.

Use of Primers		Sequences of Primers (5′ → 3′)	Annealing Tempreture (°C)	Amplicon Length (bp)
cDNA cloning	SaEcR-F	CCACCGACTTGTCTATTTCCAGG	55 °C	429 bp
	SaEcR-R	GCATATTCTGCGTTATCCACCTTC		
	SaUSP-F	AGAGCTGGTTGGAATGAGTTG	52 °C	371 bp
	SaUSP-R	AATGAAGGAAGCCGAAGAAGT		
	SaC002-F	CCGACAAATTCAAAGAGACGAAGAC	55 °C	267 bp
	SaC002-R	AGAAACTTCCAAACTTATTCACGGC		
	GFP-F	CGGGAACTACAAGACACG	50 °C	320 bp
	GFP-R	CTTTGGAAAGGGCAGATT		
	USPP-F	TGGTTGGAATGAGTTGATG	56 °C	493 bp
	USPP-R	CATGTAGCTACTTGAACGTCATG		
dsRNA synthesis	T_7SaEcR-F	TAATACGACTCACTATAGGGCCACCGACTTGTCTATTTCCAGG	55 °C	469 bp
	T_7SaEcR-R	TAATACGACTCACTATAGGGGCATATTCTGCGTTATCCACCTTC		
	T_7SaUSP-F	TAATACGACTCACTATAGGGAGAGCTGGTTGGAATGAGTTG	55 °C	411 bp
	T_7SaUSP-R	TAATACGACTCACTATAGGGAATGAAGGAAGCCGAAGAAGT		
	T_7SaC002-F	TAATACGACTCACTATAGGCGACAAATTCAAAGAGACGAAGAC	55 °C	307 bp
	T_7SaC002-R	TAATACGACTCACTATAGGAGAAACTTCCAAACTTATTCACGGC		
	T_7GFP-F	TAATACGACTCACTATAGGGCGGGAACTACAAGACACG	50 °C	360 bp
	T_7GFP-R	TAATACGACTCACTATAGGGCTTTGGAAAGGGCAGATT		
qRT-PCR	qactin-F	CGGTTCAAAAACCCAAACCAG	57 °C	231 bp
	qactin-R	TGGTGATGATTCCCGTGTTC		
	L27-F	CCGAAAAGCTGTCATAATGAAGAC	57 °C	246 bp
	L27-R	GGTGAAACCTTGTCTACTGTTACATCTTG		
	qSaEcR-F	TGATGTTCAGGGTAGCAAGG	57 °C	137 bp
	qSaEcR-R	CCGACTGAATGACAGTTGGT		
	qSaUSP-F	ATGGGTATGGATAGAACAG	57 °C	198 bp
	qSaUSP-R	TAATGAAGGAAGCCGAAG		
	qSaC002-F	CCGACAAATTCAAAGAGACGAAGAC	57 °C	267 bp
	qSaC002-R	AGAAACTTCCAAACTTATTCACGGC		

T_7 RNA polymerase promoter is underline.

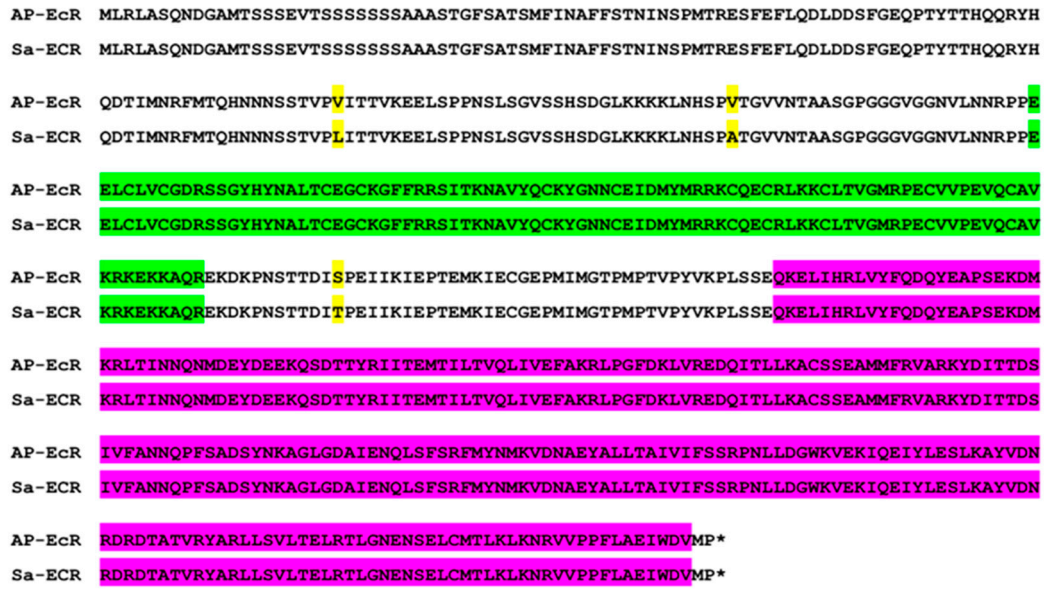


(**a**)

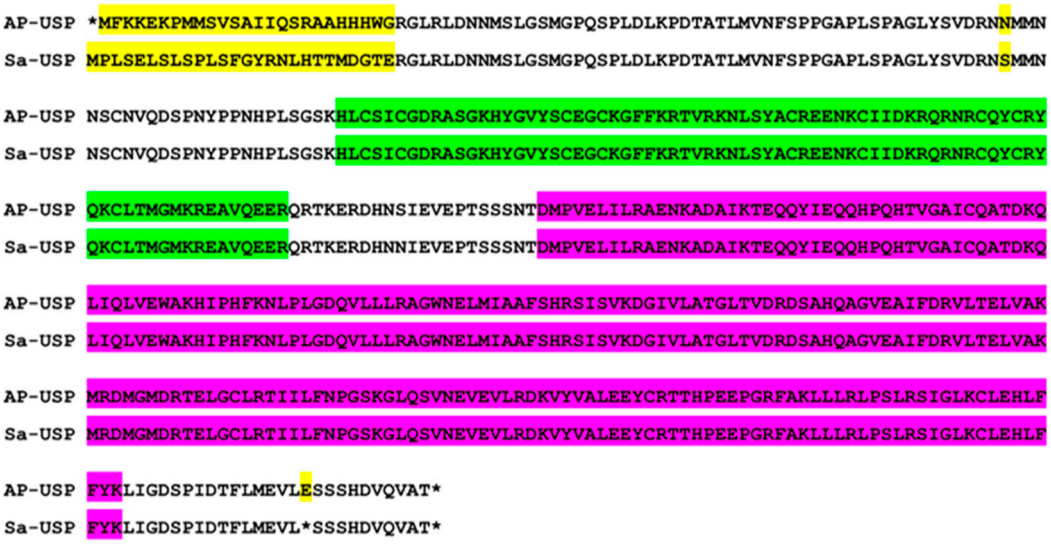
Figure S1. *Cont.*

(**b**)

Figure S1. *Cont.*



(**c**)



(**d**)

Figure S1. The alignments of the coding sequences and the deduced amino acid sequences of *EcR* and *USP* orthologs in grain aphid and pea aphid. (**a**) Alignment of the coding sequences of *EcR* between grain aphid and pea aphid; (**b**) Alignment of the coding sequences of *USP* between grain aphid and pea aphid; (**c**) Alignment of the amino acid sequences of EcR between grain aphid and pea aphid; (**d**) Alignment of the amino acid sequences of USP between grain aphid and pea aphid. The sequences shadowed with green color indicate C domain of *EcR* and *USP*, whereas these shadowed with pink color indicate E domain of *EcR* and *USP*. Differences between grain aphid and pea aphid are highlighted in yellow. The short sequences underlined are primer pairs. Primer pairs for amplification of the fragment for dsRNA synthesis in pea aphid are marked with blue lines, while these in grain aphid are marked with black lines. AP-EcR, Sa-EcR and AP-USP, AP-USP, represent the EcR and USP orthologs from pea aphid and grain aphid, respectively.