

Supplementary Materials

Table S1. Primers for qRT-PCR validation.

Gene Name	Primer Sequence (5' - 3')	Product Size (bp)
<i>soat2</i>	CGGTCATGCTGGTGACCATA ACTGAGCTGATCCTGGACCT	112
<i>rlbp1b</i>	CCCTGGTACTTCACCACCAC GCCATCGTACTTGGGAGCTT	165
<i>rbp1</i>	CTGTCTGGAGTGGATGACAGG GGTCCAGCCTCTTCCTTCAA	102
<i>apoa1</i>	GTCAAGCTGGAGCCCGTAAT AGGGACTTGCCATCTGCTTC	148
<i>rpe65a</i>	GACTGCTTCGAGTCCAACGA CAATGGCTGCCCCCTTTGAAC	100
<i>rh2</i>	AGGTACCTTCCTGAGGGCAT CGGGAACGAAGAAGTGGACA	118

Table S2. Primers for candidate genes of red coloration.

Gene Name	Primer Sequence (5'-3')	Product Size (bp)
<i>plin2</i>	TGGGTTCACTGTCCACCAAG CACACCACCAGGGAGCTAAG	112
<i>scarb1</i>	TTGAGCCGTCGATGTCTGTC CAACAACCGCAACACGTAGG	113
<i>bco1</i>	CTGTCTGGAGTGGATGACAGG GGTCCAGCCTCTTCCTTCAA	132
<i>plin6</i>	CGTTACCCTTTGCTGGGTCT AACCATCACCTCGTCTGCTG	204
<i>csf1ra</i>	CTTCAGTGGAATGGAGGCGT CGTCTGTGTTTGGGTAGCCT	151
<i>gch2</i>	GGGCTATCACGAGACCATCG TTGAACCTGAAGCCTCCGAC	226
<i>slc2a15b</i>	GCAGGAATCCCACAACCGTA ACGCTGATGTAACGCAGGAA	212
<i>apoda</i>	CCCTCCGTTCAATCAGCCTT ATTTCCGAGCTGACCACTCG	152

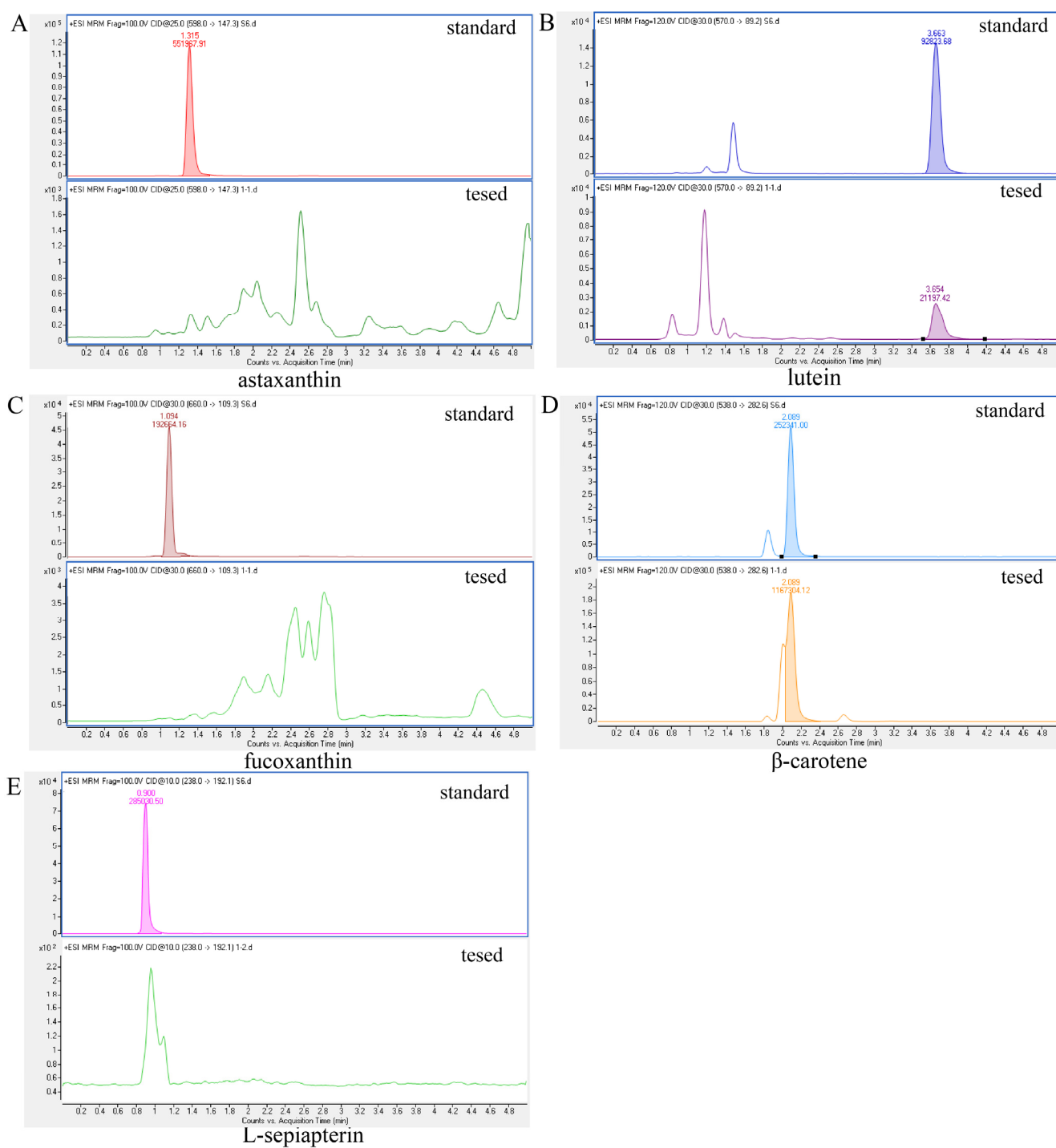


Figure 1. Pigments detected by LC-MS. Identification of pigment types responsible for the red coloration by LC-MS. “Standard” refers to the pigment standards, and “Test” represents the spotted scat larvae sample. **A** represents astaxanthin, **B** represents lutein, **C** represents fucoxanthin, **D** represents β -carotene, **E** represents L-sepiapterin.