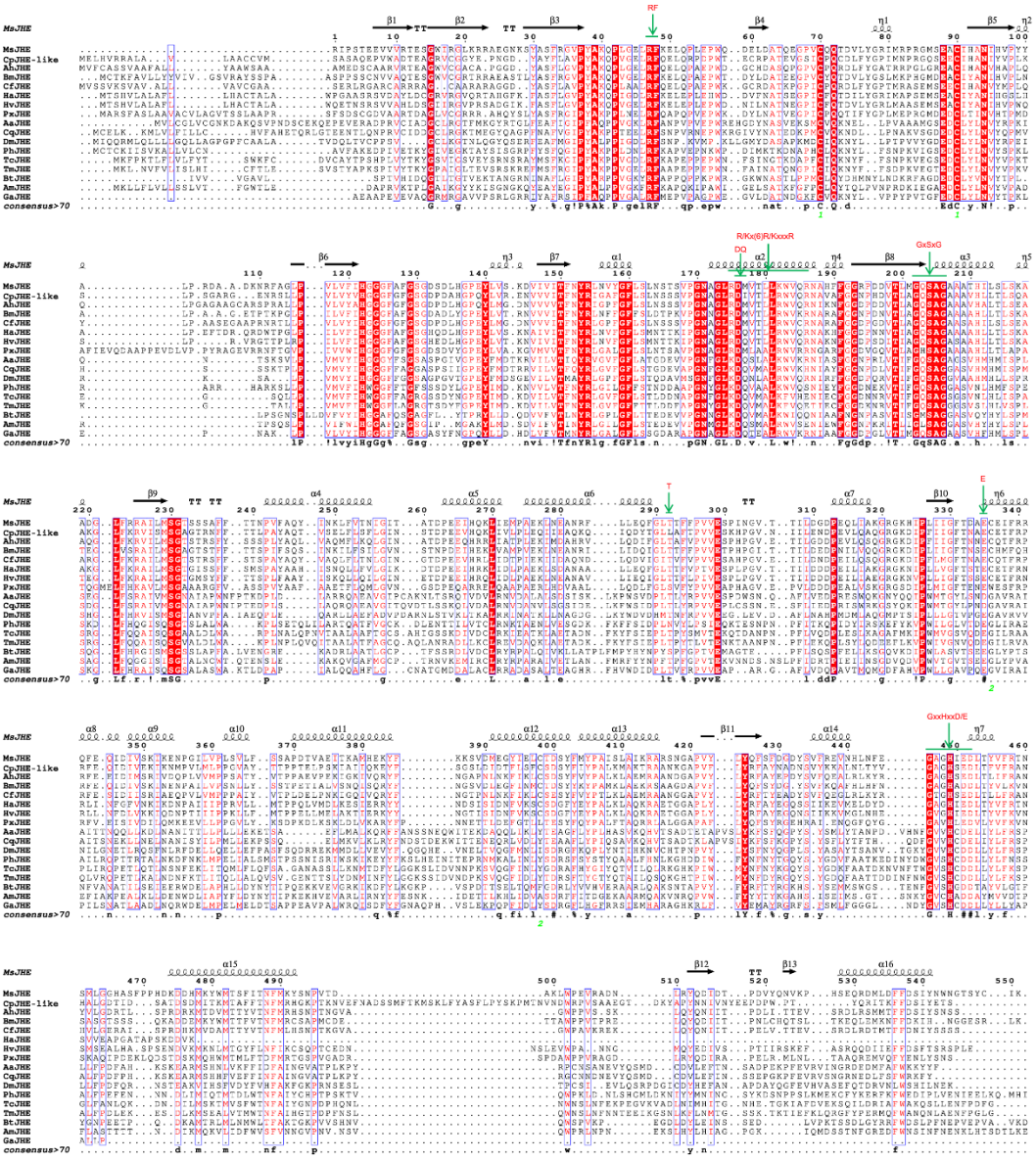

Appendix A Multiple sequence alignments of the insect juvenile hormone esterases. The alignment was performed by MAFFT v7, aligned sequences were depicted with ESPript 3.0 server (http://espript.ibcp.fr/ESPript/cgi-bin/ESPript.cgi). The green arrows were pointing to seven conserved motifs, identical residues were shaded red, and other conserved residues were showed by red font with blue border. The secondary structure elements (α-helix, β-sheet and turn) of juvenile hormone esterases were referenced with the MsJHE (pdb: 2FJ0) shown on top of the alignment in black helixes and arrows, respectively.