**S1 Accession No**

The supporting materials S1 includes; 7 species of Vespaidae: *Vespa mandarinia* (XP\_035737952.1), *Vespa crabro* (XP\_046824901.1), *Vespa velutina* (XP\_047357593.1), *Vespula vulgaris* (XP\_050858048.1), *Vespula pensylvanica* (XP\_043673380.1), *Polistes dominula* (XP\_015177827.1), *Polistes fuscatus* (XP\_043495209.1); 17 species of Bee family: *Bombus vancouverensis nearcticus* (XP\_033205116.1), subgenus *Bombus huntii* (XP\_050473413.1), *Bombus impatiens* in eastern America (XP\_003491527. 1), *Bombus terrestris* (XP\_003394698.1), *Bombus ignitus* (8EW5\_A Chain A), *Apis dorsata* (XP\_006618153.1), *Apis florea* (XP\_003696584.), *Apis laboriosa* (XP\_0437) 92750 .1), *Apis mellifera caucasica* (KAG6799352.1), *Apis cerana* (XP\_016912210.1), *Megachile rotundata* (XP\_003706340.1), *Melipona quadrifasciata* (KOX67587.1), *Frieseomel ittavaria* (XP\_043521843. 1), *Habropoda laboriosa* (XP\_017790128.1), *Colletes gigas* (XP\_043257386.1), *Osmia lignaria* (XP\_034180962.1), *Ceratina calcarata* (XP\_017884125.1); Formicidae 13 Species: *Camponotus floridanus* (XP\_011267943.1), *Monomorium pharaonis* (XP\_012533138.1), *Pogonomyrmex barbatus* (XP\_011629524.1), *Dinoponera quadriceps* (XP\_014479977.1 ), *Harpegnathos saltator* (XP\_011154535.1), *Odontomachus brunneus* (XP\_032685464.1), *Acromyrmex echinatior* (XP\_011064338.1), *Pseudomyrmex gracilis* (XP\_020284828.1), Spain Arrow ant *Cataglyphis hispanica* (XP\_050455871.1), *Formica exsecta* (XP\_029672853.1), *Nylanderia fulva* (XP\_029155503.1), *Solenopsis invicta* (XP\_011171429.1), *Temnothorax longispinosus* (TG Z32040.1 ).

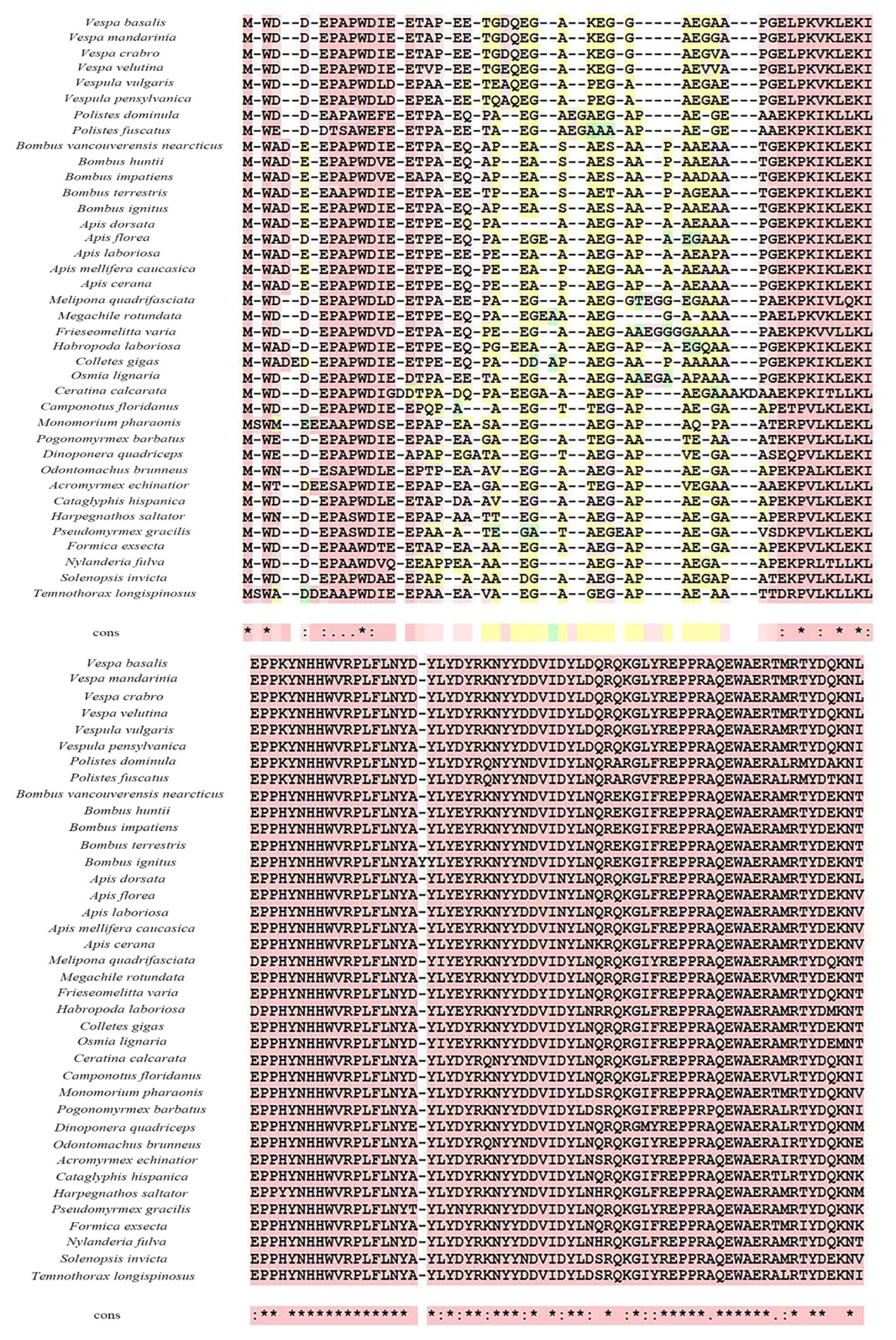


Figure S2. Protein Homology

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