

Establishment of the toxic evaluation method of the chemical substance using the silkworm model

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Silkworm is less ethical and low cost animal model compared to mammals. We found metabolic pathway in silkworm is equivalent in mammals and LD₅₀ values of several compounds in silkworm is also similar that in mammals. It is suggesting silkworm would be good alternative model for toxicity evaluation of chemicals. In this study, we analyzed cytochrome P450 function, which is important factor on drug metabolisms, and established human metabolism mimic model by transgenic technique. Furthermore, massive toxicity evaluation was performed in silkworm model.