

Supplementary Material

## ***In vitro* human metabolism and inhibition potency of verbascoside for CYP enzymes**

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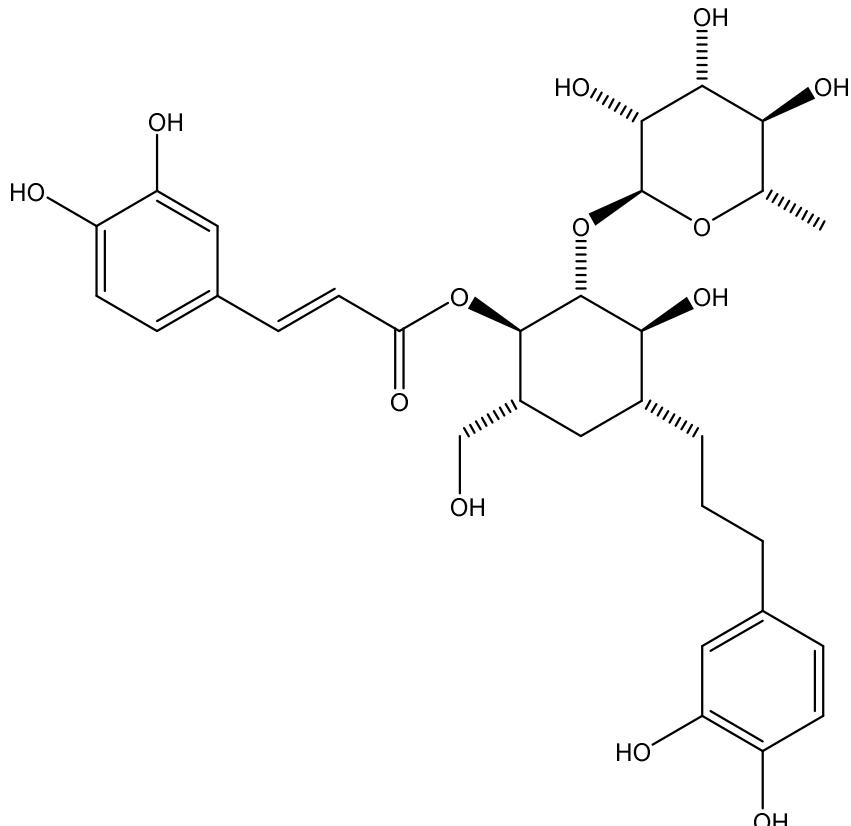


Fig 1S: Verbascoside structure

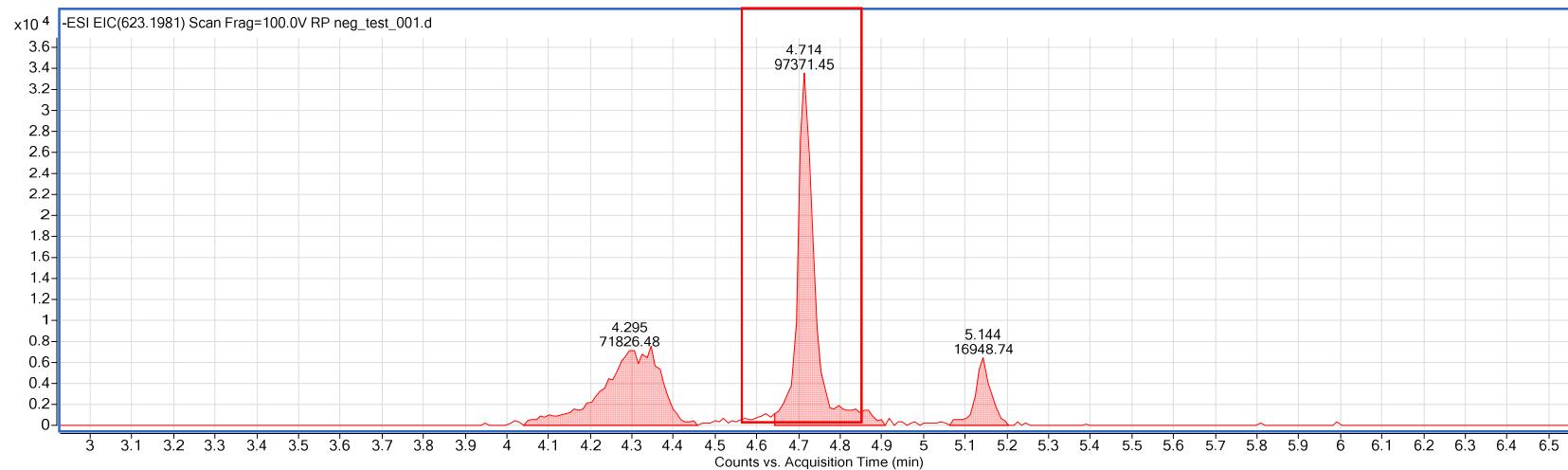


Fig 2S: The ESI EIC scan of verbascoside (Standard). The area of interest is circled in red (peak= 4.714)

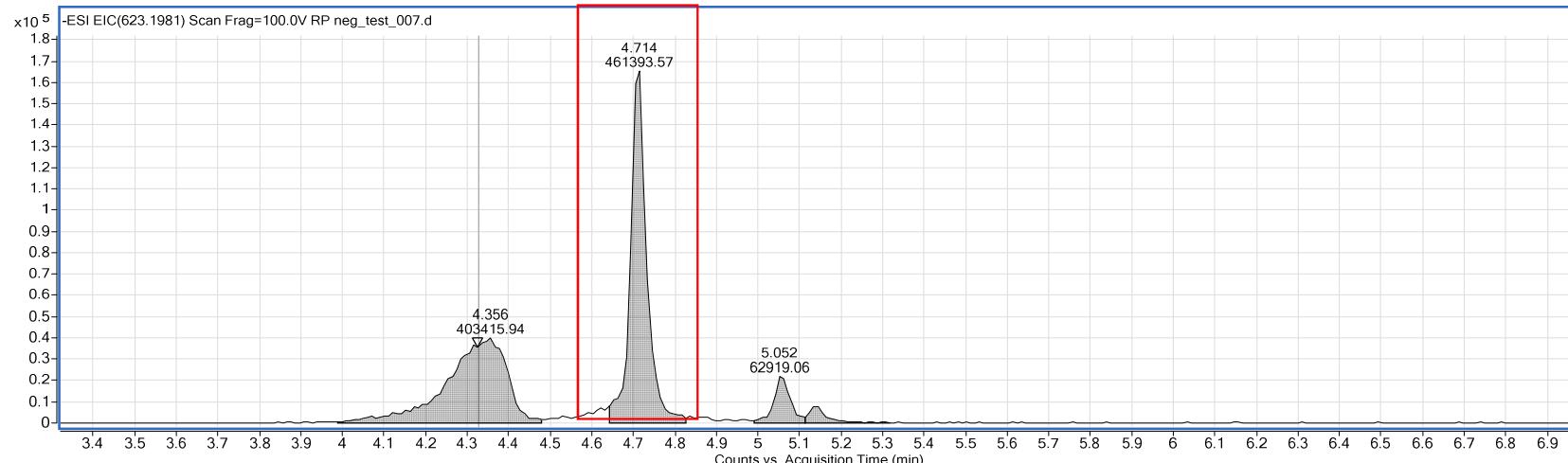


Fig 3S: The ESI EIC scan of the ethanolic extract of *Lippia scaberrima*, confirming the presence of verbascoside within the extract. The area of interest is circled in red (peak= 4.714)

### CYP1A2 (OCA349)

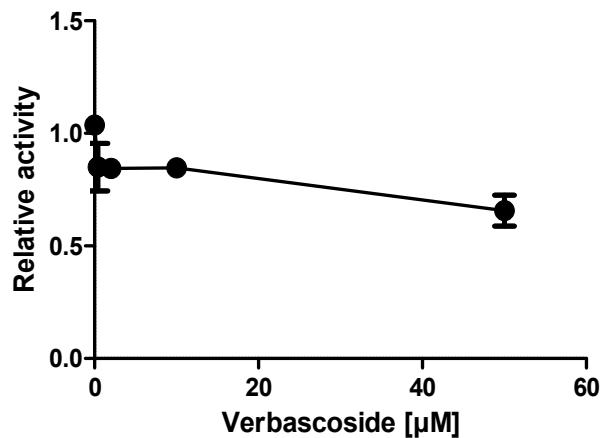


Fig 4S: The recombinant CYP 1A2 inhibition potential of verbascoside after incubation at various concentrations

### CYP1B1 (TFD008\_1)

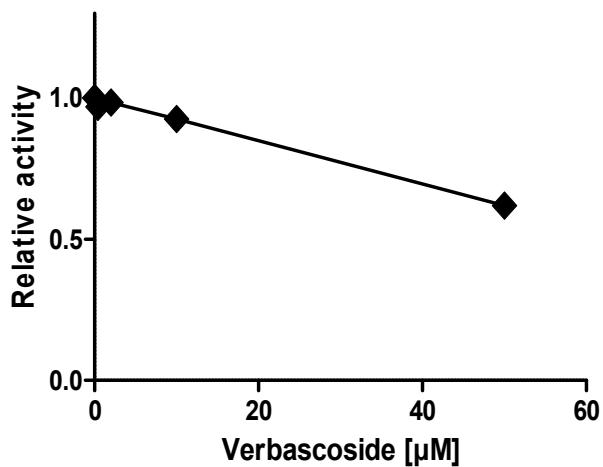


Fig 5S: The recombinant CYP 1B1 inhibition potential of verbascoside after incubation at various concentrations

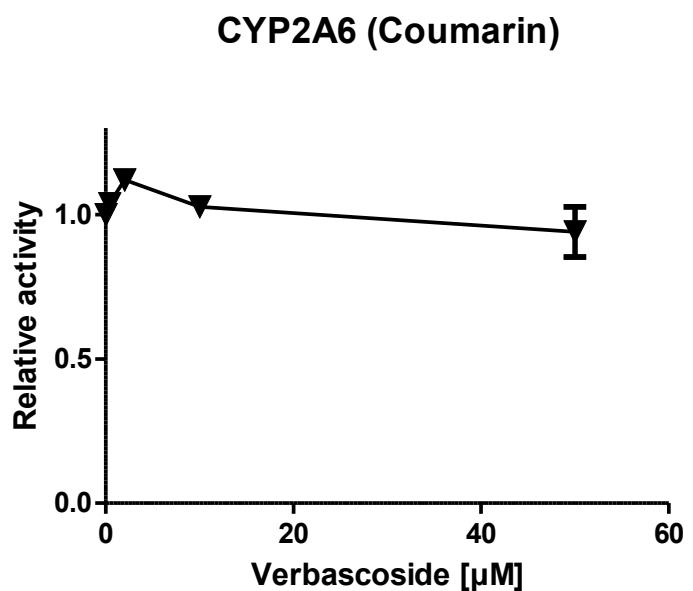


Fig 6S: The recombinant CYP 2A6 inhibition potential of verbascoside after incubation at various concentrations

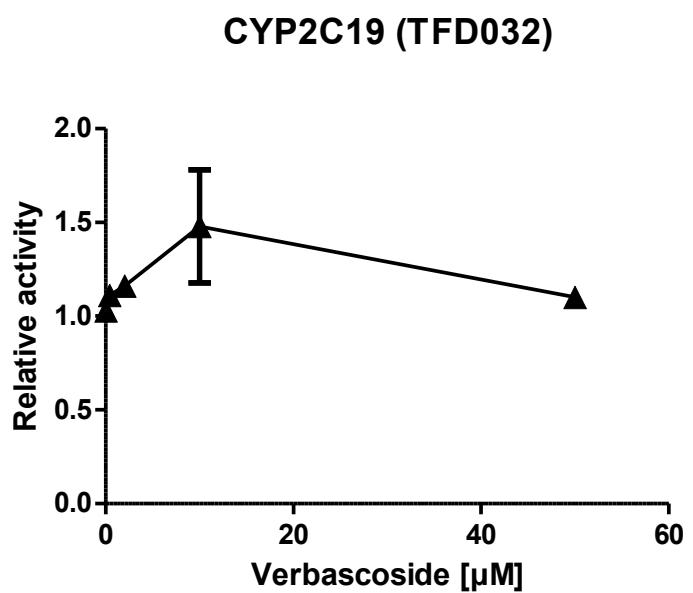


Fig 7S: The recombinant CYP 2C19 inhibition potential of verbascoside after incubation at various concentrations

### CYP2D6 (TFD023)

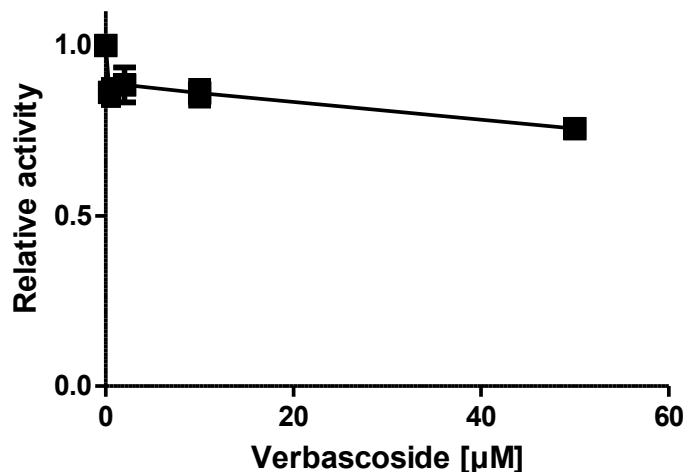


Fig 8S: The recombinant CYP 2D6 inhibition potential of verbascoside after incubation at various concentrations

### CYP3A4 (OCA369)

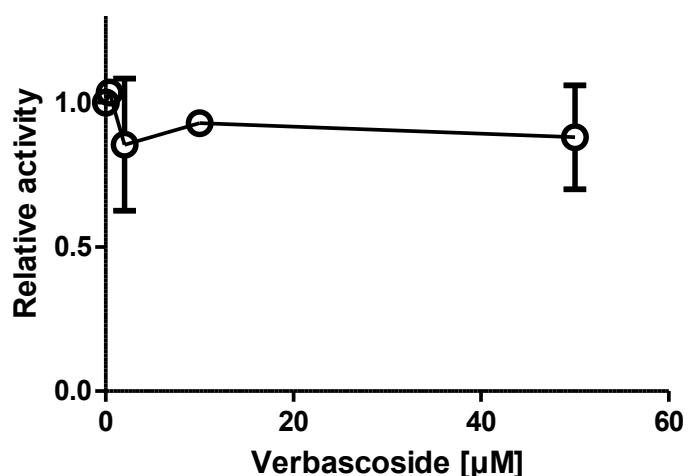


Fig 9S: The recombinant CYP 3A4 inhibition potential of verbascoside after incubation at various concentrations

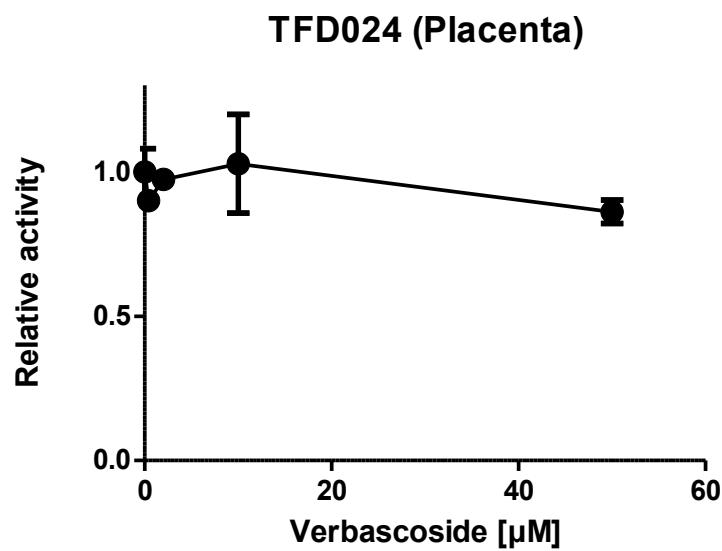


Fig 10S: The microsomal CYP1A1 inhibition potential of verbascoside after incubation at various concentrations

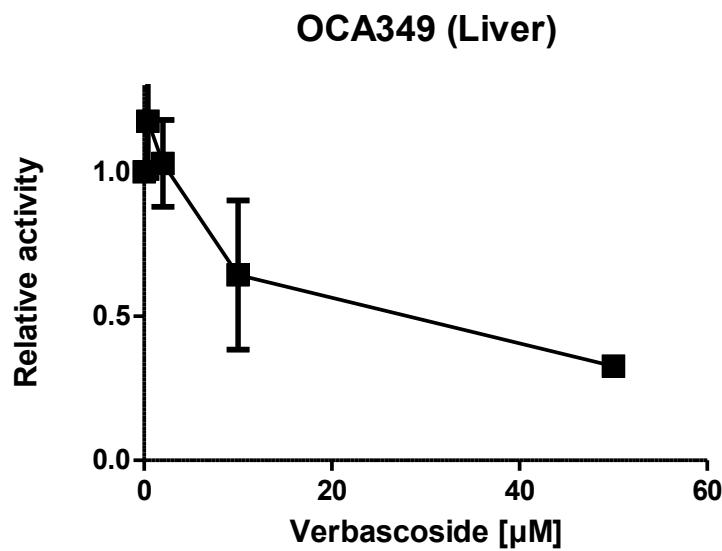


Fig 11S: The microsomal CYP1A2 inhibition potential of verbascoside after incubation at various concentrations

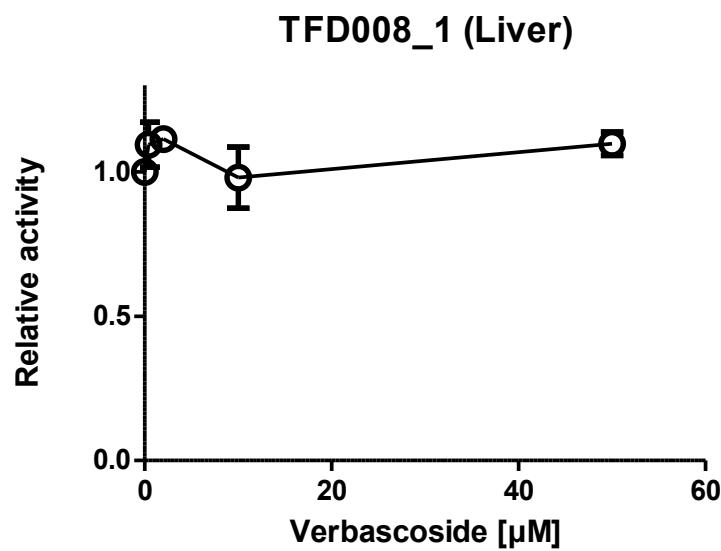


Fig 12S: The microsomal CYP1B1 inhibition potential of verbascoside after incubation at various concentrations

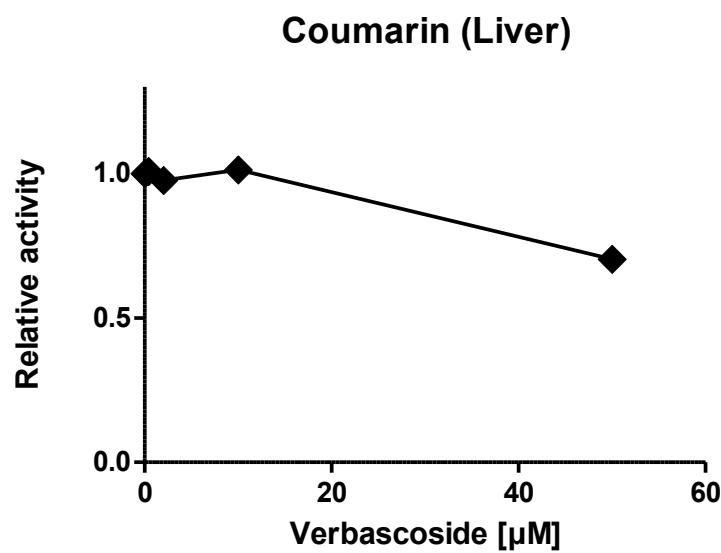


Fig 13S: The microsomal CYP2A6 inhibition potential of verbascoside after incubation at various concentrations

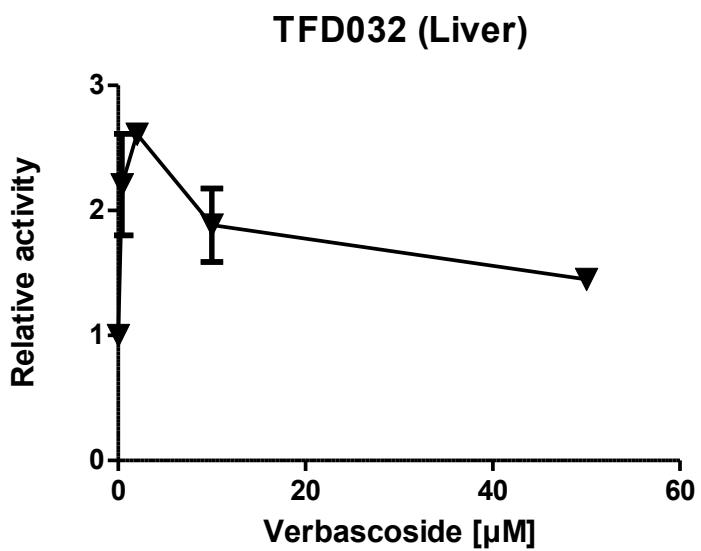


Fig 14S: The microsomal CYP2C19 inhibition potential of verbascoside after incubation at various concentrations

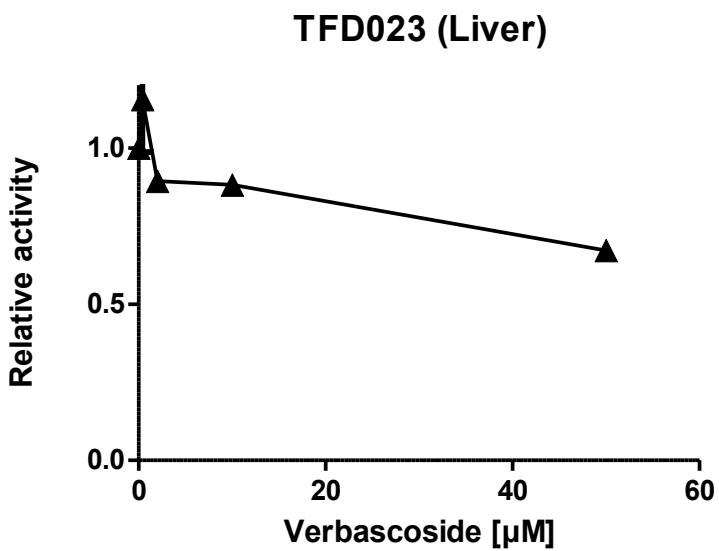


Fig 15S: The microsomal CYP2D6 inhibition potential of verbascoside after incubation at various concentrations

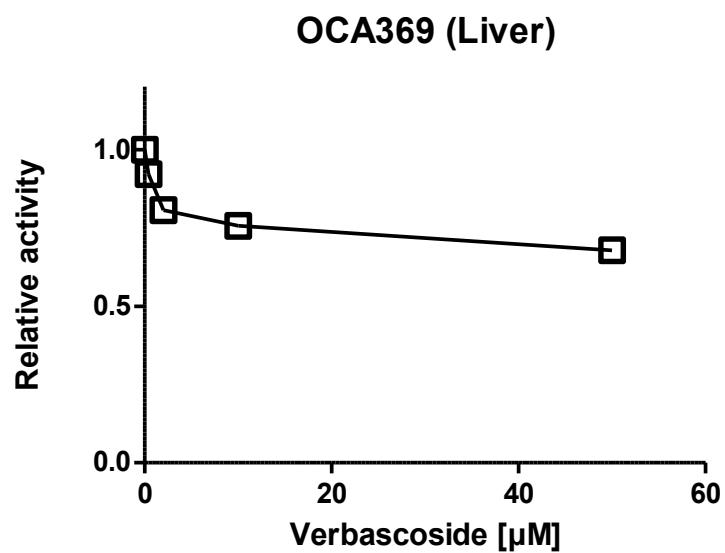


Fig 16S: The microsomal CYP3A4 inhibition potential of verbascoside after incubation at various concentrations