Supporting Information

for

Design, Synthesis, and Insecticidal Activity Evaluation of Piperine Derivatives

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1. NMR Spectra .................................................................
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\[ C_{12}H_{11}O_4 = 219.06519 \pm 0.20797 \text{ ppm} \]
\[ C_{14}H_{14}O_5N = 276.08665 \pm 3.35093 \text{ ppm} \]
D18

34 #58 RT: 0.57 AV: 1 NL: 3.23E8
T: FTMS + p ESI Full ms [100.0000-1000.0000]

43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
493.15533 C27H23NO5F2 = 493.15695 -3.28541 ppm
495.16174 515.13745 435.14993 531.11090 550.17670 517.25641 507.16782 444.21881 475.14764

D39

35 #59 RT: 0.61 AV: 1 NL: 9.48E7
T: FTMS + p ESI Full ms [100.0000-1000.0000]

48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
525.16119 C28H24NO5F3 = 525.16318 -3.78755 ppm
547.14301 563.11743 527.16699 476.22589 581.26892 551.17749 515.14453 561.16003 491.13608 565.11554 506.09561 479.22705 589.13544
RT: 0.63  AV: 1  NL: 5.56E8

T: FTMS + p ESI Full ms [100.0000-1000.0000]

350 355 360 365 370 375 380 385

373.15344  374.15680  375.15988
13 #65 357.22705  351.06485

347.20609  369.18817  384.64066
353.06140  365.14844

392.12552

32.3 C 23 H 21 O 3 N 2

= 373.15467

-3.28725 ppm