

SUPPLEMENTARY DATA

“*Glycosmis pentaphylla* (Rutaceae): A Natural candidate for the isolation of potential bioactive arborine and skimmianine compounds for controlling Multidrug Resistant *Staphylococcus aureus*”

Natarajan Murugan^{1,†}, Ramalingam Srinivasan^{1,2,3,†}, Athiappan Murugan⁴, Myunghee Kim^{2,¶}, Devarajan Natarajan^{1,*}

¹Natural Drug Research Laboratory, Department of Biotechnology, School of Biosciences, Periyar University, Periyar Palkalai Nagar, Salem 636 011, Tamil Nadu, India

²Department of Food Science and Technology, Yeungnam University, Gyeongsan, Gyeongsangbuk-do 38541, Republic of Korea

³Department of Biotechnology, K. S. Rangasamy College of Arts and Science, K. S. R. Kalvi Nagar, Tiruchengode 637 215, Namakkal, Tamil Nadu, India

⁴Department of Microbiology, School of Biosciences, Periyar University, Periyar Palkalai Nagar, Salem 636 011, Tamil Nadu, India

[†]These authors contributed equally to this work.

Running Title: Arborine and Skimmianine for control of MDR *S. aureus*.

***Corresponding author:** Dr. Natarajan Devarajan, Department of Biotechnology, Periyar University, Periyar Palkalai Nagar, Salem 636 011, Tamil Nadu, India. Tel: +91-94-4385-7440; E-mail: natarajpu@gmail.com

¶Co-corresponding author: Dr. Myunghee Kim, Department of Food Science and Technology, College of Life and Applied Sciences, Yeungnam University, Gyeongsan-si, Gyeongsangbuk-do 38541, Republic of Korea. Tel.: +82-53-810-2958; Fax: +82 53-810-4662; E-mail: foodtech@ynu.ac.kr

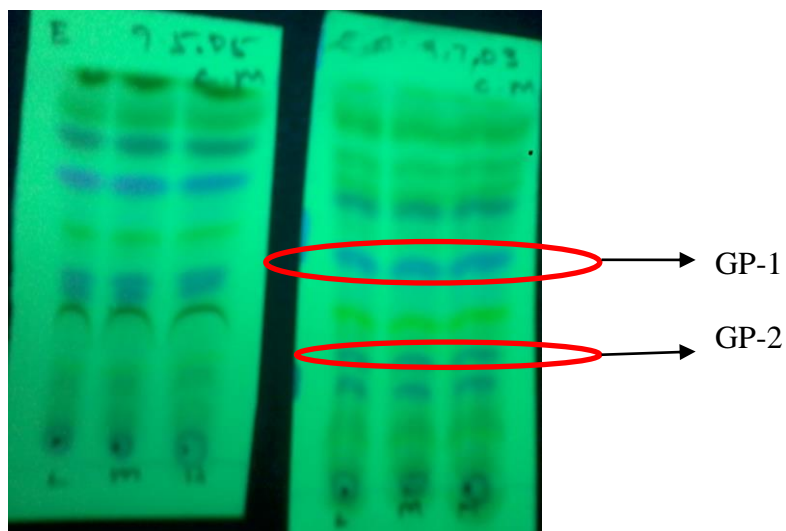


FIGURE S1. TLC chromatogram of ethyl acetate fraction of *G. pentaphylla*

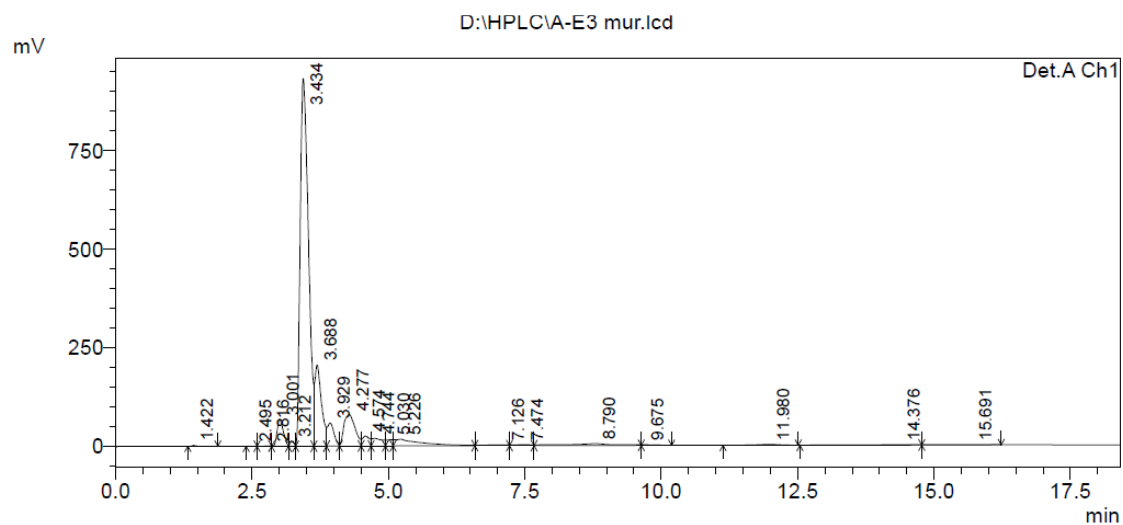


FIGURE S2. HPLC analysis of isolated compounds from ethyl acetate fraction of *G. pentaphylla*

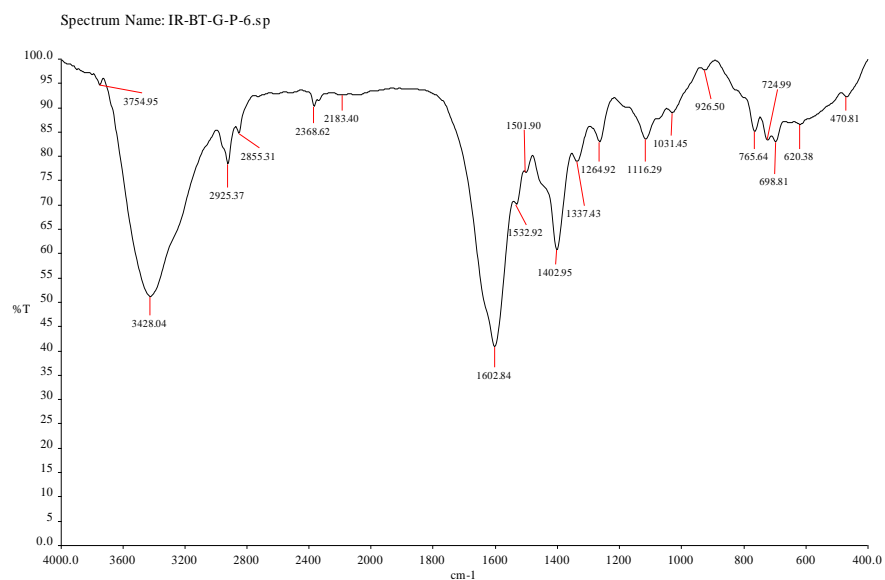


FIGURE S3. FT-IR spectrum of arborine

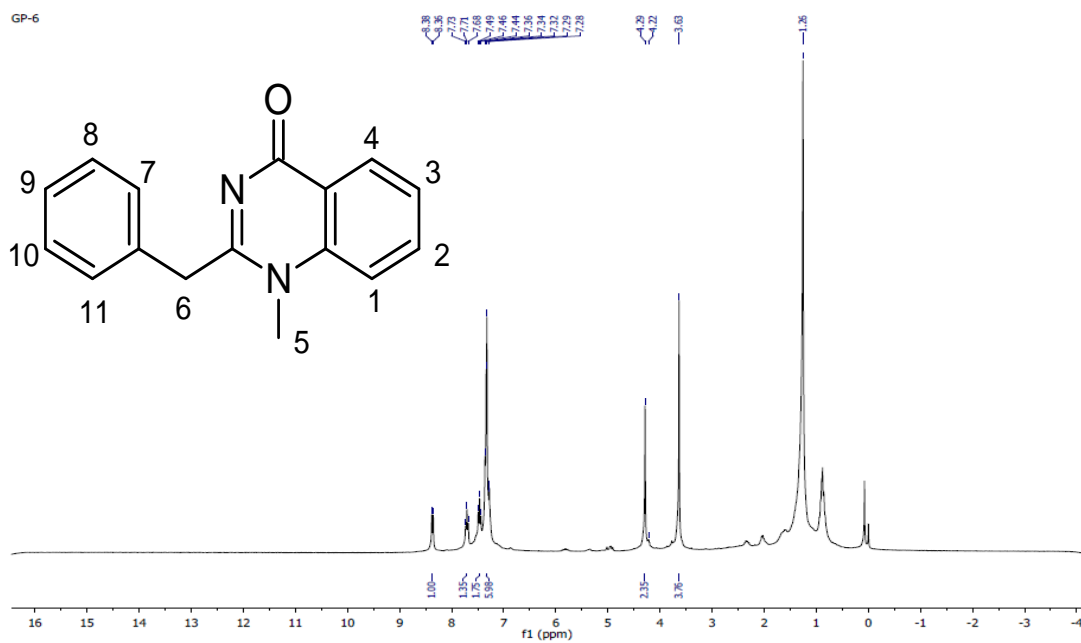


FIGURE S4. ¹H-NMR spectrum of arborine

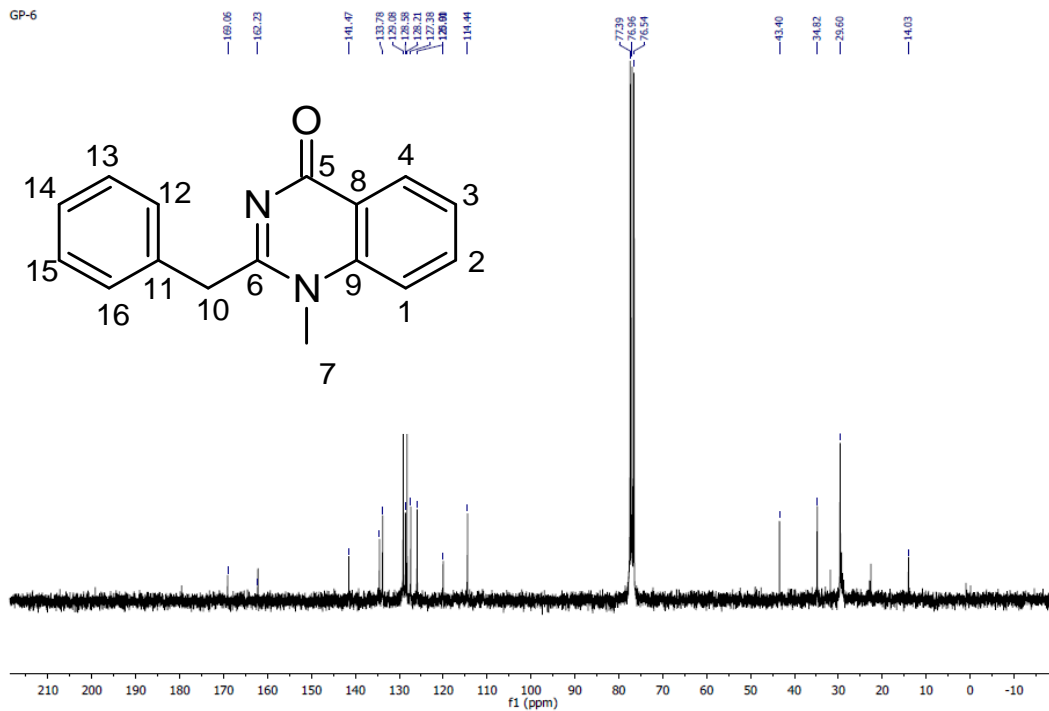


FIGURE S5. ¹³C-NMR spectrum of arborine

R.Time:16.167(Scan#:971)
 MassPeaks:454 BasePeak:251(26285)
 Spectrum Mode:Averaged 14.800-21.283(889-1278)
 BG Mode:Averaged 23.333-30.100(1401-1807) Polarity:Positive Segment 1 - Event 1

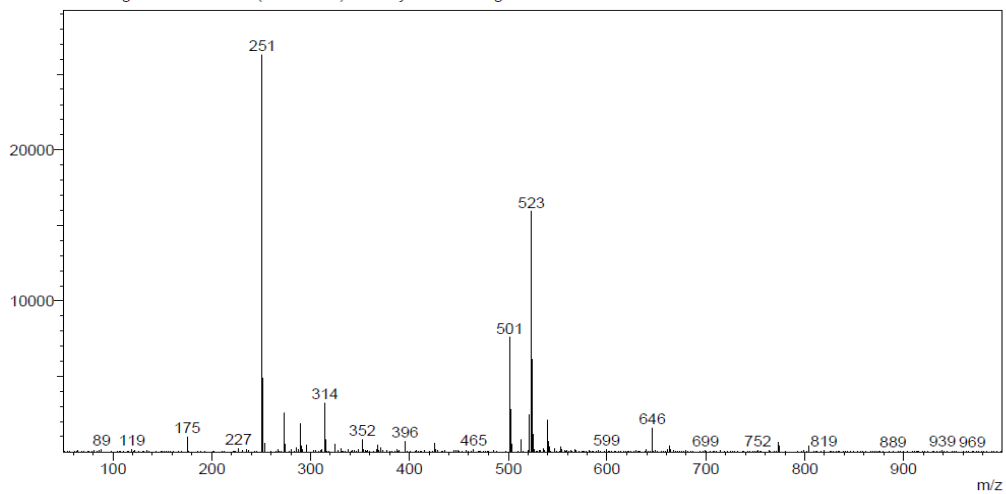


FIGURE S6. Mass spectrum of arborine

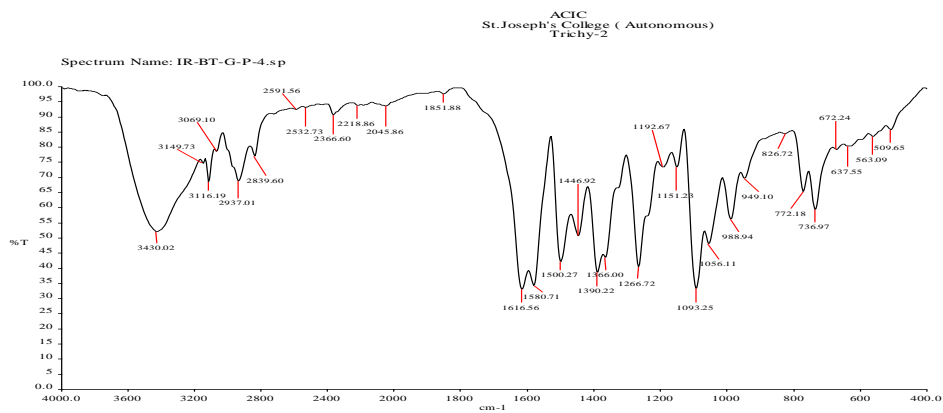


FIGURE S7. FT-IR spectrum of skimmianine

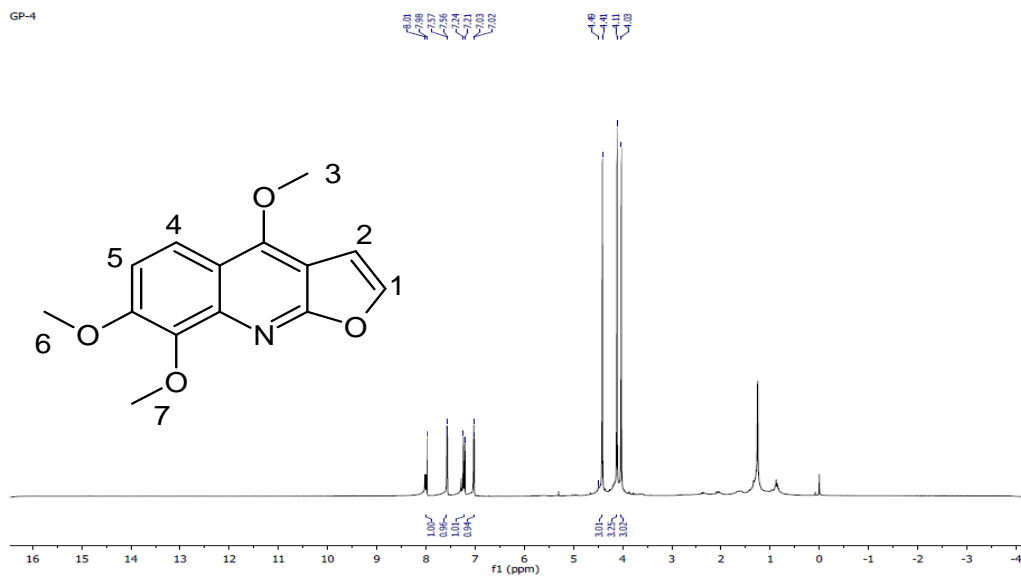


FIGURE S8. ¹H-NMR spectrum of skimmianine

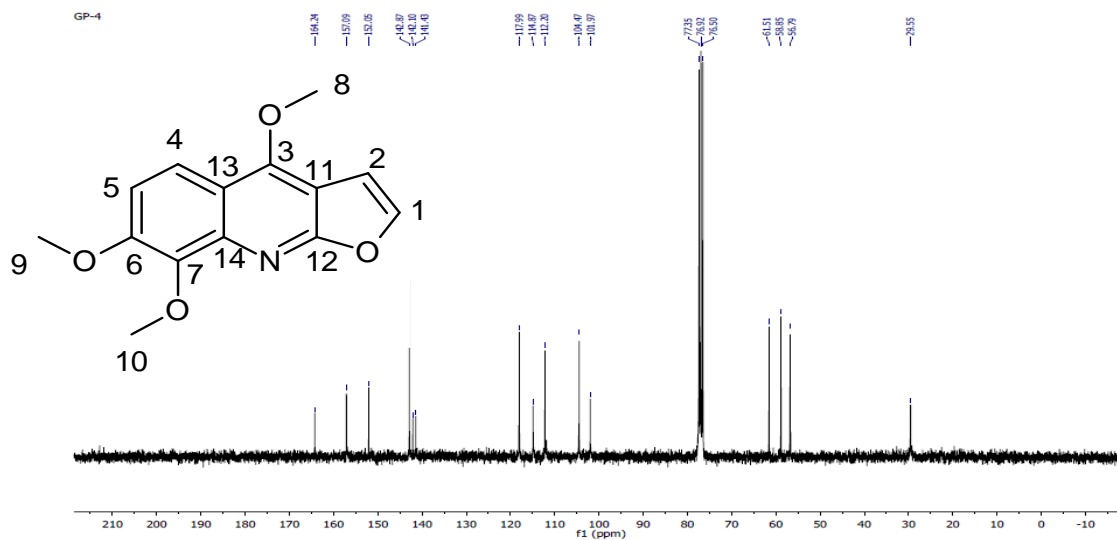


FIGURE S9. ¹³C-NMR spectrum of skimmianine

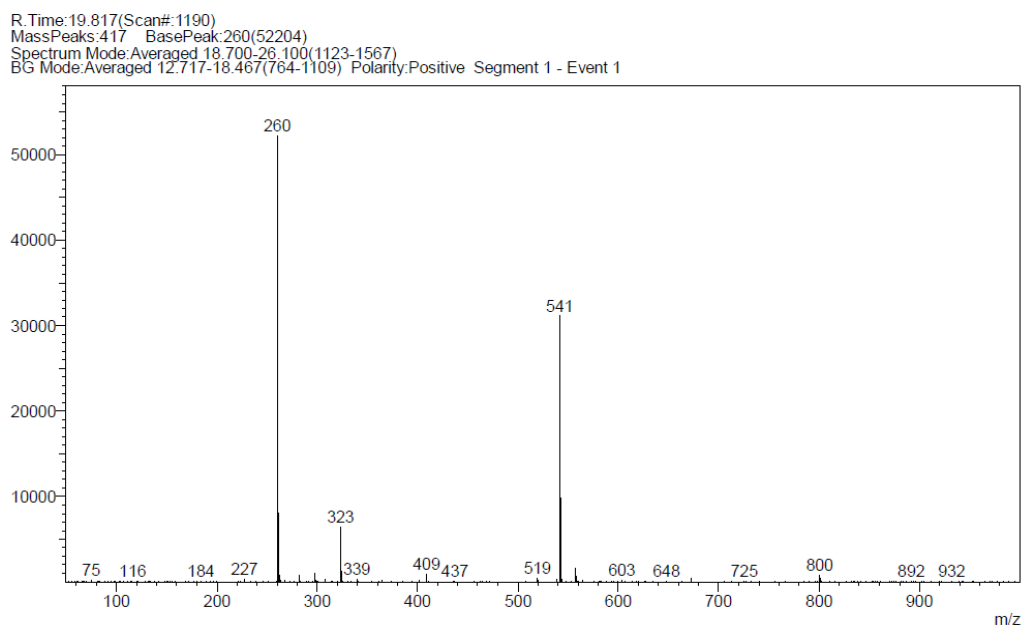


FIGURE S10. Mass spectrum of skimmianine